

GALAXY

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APRIL 1961 50¢ K

TANDY'S STORY

Theodore Sturgeon

K KREATIVITY FOR KATS

Fritz Leiber

I CAN DO ANYTHING

J. T. McIntosh

AND OTHER STORIES

APRIL 1961



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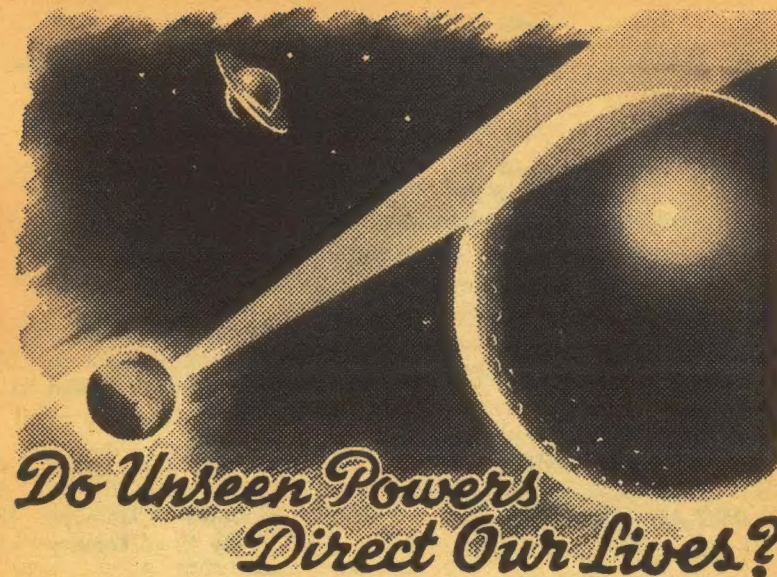
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ROBERT M. GUINN, Publisher

H. L. GOLD, Editor

JOAN J. De MARIO, Asst. to the Publisher

WILLY LEY, Science Editor

SAM RUVIDICH, Art Director

CARLA CAMP, Asst. to the Editor

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PUZZLES FOR PLOTTERS

WHAT makes a good science-fiction writer? Well, we can kick that one around all day, but most of us will agree on one thing:

It takes what the late Alfred Korzybski called an ability to think "out of categories"—that is, to take the whole body of human learning, history, education and experience and contemplate it from outside.

Ex-servicemen will remember the battery of tests they were given upon induction—tests to discover knowledge and abilities, but also tests to discover in what areas each new recruit could be expected to do well *if* he had the training. We recently came across a couple of child's riddles that led us to some distinctly non-childish areas of speculation, and might even have something to do with the "out of categories" sort of mental processes we were talking about. Maybe they might show whether you yourself can be a science-fiction writer!

These are the riddles:

1. The word ax (or axe) can be spelled with either two or three letters. It can, however, always be spelled with two letters, neither of which is "A" or "X" or "E." What are those two letters?

2. Rearrange the letters in the words "new door" to make one word.

Have you figured out the answers yet? It's worthwhile to take a moment to do so before going on. . . .

Present these riddles to someone of at least reasonable intelligence (who has never heard them before, of course) and you learn something about the way he thinks. There are three main lines of attack possible in trying to solve them.

The first is what you might call the "electronic computer" method. It is laborious, mechanical, repetitious, boring . . . and quite infallible, providing all the information is accessible. (And providing that the instructions are programmed correctly—that is, that the question is "fair.")

It would work something like this, on the first riddle: The machine reaches into its memory banks and discovers that there are twenty-six letters in the alphabet. Three of them are excluded by the rules—A, X and E. The machine then systematically pairs each unexcluded letter with every other unexcluded letter:

B — B
B — C
B — D
B — F

and so on. It then scans each pair and compares it with, say, an unabridged dictionary to see if by any chance one of them spells the word "axe." Of course, none of them does. It then lights up its red "reject" panel and waits, humming sulkily, for a "fair" question.

Or it might not get that far. It might merely compare the first statement with the second statement, decide that they are mutually contradictory (which they are!), and refuse to play at all.

(A similar program might be tried on the second riddle. Solving it "like a computer" would mean constructing a table of all the permutations of the seven characters in the words "new door"—an even longer, and just as fruitless, job.)

THIS is a method that can be used to carry *pi* to a million decimals, predict the lunar eclipses of the year 1,001,961 A.D. or chart the behavior of nuclear particles—but it isn't worth beans for solving riddles. And it isn't much good for plotting a science-fiction story either.

A really sophisticated computer—or a fairly bright human being—would not bother with it. Or if

he did try the laborious method and found it didn't work, he would then re-examine the basic premisses. He would conclude the question wasn't "fair." What this assumption then requires is to analyze all the statements for "catches"—for example, a failure to distinguish between the use of "language"—i.e., the use of words to describe *things*—and "meta-language" or the use of words to describe *symbols* for things.

He would then restate the questions to show such distinctions. In written English we use a convention of quotation marks to distinguish words-that-refer-to-words and words-that-refer-to-things, which means that we need only to repunctuate the questions. However, to make them clearer we should also drop out the unnecessary, merely dust-in-the-eye information, which is included only to confuse our thinking.

The revised riddles then come out like this:

1. ... "It" can... be spelled with two letters... What are those two letters?
2. Rearrange the letters in the words "new door" to make "one word."

The answers to *those* two questions are just about instantly apparent to any human being over the age of eight—provided they have not previously seen the same problems in their tricked-up

form. But it's interesting to note that a sizeable fraction of the human race can't answer those questions at all if they've seen the other form first! (If you are one such, the answers are respectively "I-T" and "O-NE W-O-R-D.") It seems that they learn all too easily. Merely seeing the questions stated in a confusing way sticks in their minds to such a degree that a pattern of confusion persists even after the confusion has been removed.

Now this (as far as we know; maybe Bell or IBM has gone a step farther than they've told us) is a bit beyond the power of the average computer. It is also beyond the power of many humans. What it comes down to is being asked a question by the universe and getting at the truth by *changing the question*. This is a writer's job—any writer. He has to take the facts of the world as they exist and shuffle them around to invent a new "plot" in order to tell us his story, or "answer."

But a *science-fiction* writer goes even a step farther.

WE actually tried the questions out on a couple of science-fiction writers.

One of them barely glanced at the first riddle, then set down two quick scribbles: In his phonetic shorthand, the vowel "A" and the double consonant "X" are each

written with one character. We objected: "We meant letter of the English alphabet." He said: "You didn't say so!"

The other answered the second riddle. He came up with the word "O'Rowned," and defined it as, "The state of having been subjected to a process named after a Mr. O'Rown, as in 'macadamed' (a road), 'Hoovered' (a floor), etc." We were about to object that we didn't mean coined words—but there, too, we hadn't *said* so!


And there is the third method of solution. The first was to operate according to the apparent rules; the second to deduce what the framers of the rules meant . . . and the third is to deduce new rules, or expansions of rules, for yourself.

If the first is that of the machine and the second that of the writer, then the third is that of the *science-fiction* writer. It is up to him to tell us not what things are like but what they *might* be like if different conditions obtained—say, in the future; or in paratimee; or on another planet.

He cannot change the questions that are asked of him. But he *can* change the basic postulates that lie behind the questions.

In other words, when the universe asks him a cheating riddle—he cheats back!

—H. L. GOLD



One stranger was a god —

the other a devil.

Strange that they should be on the same side!

PLANETEER

By FRED SABERHAGEN

Illustrated by FINLAY

DURING the weeks that the starship *Yuan Chwang* had hovered in close observation of the new planet Aqua, ship's time had been jockeyed around to agree with the sun-time at the place chosen for first landing.

Boris Brazil saw no evidence of sane thinking behind this procedure; it meant the planeteer's briefing for the big event was set for 0200, and he had to get up in what was effectively the middle of the night—a thing to which he had grown accustomed, but never expected to learn to enjoy. Leaving his tiny cabin in a state of disorder that might have infuriated an inspecting officer—had there been an inspecting officer aboard interested in the neatness of cabins—he set forth in search of chow.

Brazil was tall and bony, resembling a blond young Abe Lincoln. He rubbed sleep from his eyes as his long legs carried him toward the mess hall. A distracting young squab from Computing sailed past him in the opposite direction, smiling.

"Good luck," she said.

"Is the coffee that bad?" It was the best facsimile of a joke he could think of this early.

Virgil
Finlay

But the girl hadn't been talking about coffee. Chief Planeteer Sam Gates had picked Brazil to go along on the first landing attempt, he learned when he met Gates in the chow line. He saw by the small computer clipped to Sam's belt that the other man had been up early on his own, double-checking the crew chief and maintenance robots who were readying their scoutship. Brazil felt vaguely guilty—but not very. He might well have been just another body in the way.

Sam Gates stood in the chow line swinging his arms and snapping his fingers, chewing his dark mustache as he usually did when nervous.

"How's it look?" Brazil asked.

"Oh, free and clear. Guess we'll have ground under our feet in a few hours."

MOST of the *Yuan Chwang's* twenty-four planeteers were in the chow line, with a fair number of people from other departments. The day's operation was going to be a big one for everybody.

Trays loaded with synthetic ham, and a scrambled substance not preceded or followed by chickens, Gates and Brazil found a table. Ten scoutships were going down today, though only one would attempt to land; most of

the night shift from all departments seemed to think it time for lunch. The mess was filling up quickly.

"Here comes the alien," said Gates, gesturing with his fork.

Brazil raised his eyes toward the tall turbaned man bearing a tray in their direction.

"Hi, Chan. Pull up a chair."

Chandragupta was no more an alien here than any other Earthman; his job had earned him the nickname.

"Good morning," said the Tribune with a smile, sitting down with Gates and Brazil. "I hope my people treat you well today." He had not yet seen one of "his people" and possibly never would; but from the moment high-altitude reconnaissance had established that intelligent life at an apparently primitive technological level existed on Aqua, his job had taken on substance. He was to represent the natives below in the councils aboard the *Yuan Chwang*, to argue for what he conceived to be their welfare at every turn, letting others worry about the scientific objectives that had brought the exploration ship so far from Earth, until he was satisfied that the natives needed no help or the mission was over.

"No reason to expect any trouble," said Brazil. "This one looks fairly simple."

"Except we know there are some kind of people down there," said Gates. "And people are never as simple as you'd like them to be."

"I wonder if they will need my help," said Chan, "and I wonder if I will be able to help them." The job of Tribune was a new one, really still experimental. Chan shrugged. "But there is no point in my speculating now. In a few hours perhaps I will know."

"We're not trying to conquer them, you know," said Brazil, half amused and a little offended by Chan's eagerness to defend against Earth a people he had never seen.

"Oh, I know. But we must be sure not to conquer them by accident, eh?" Chan attacked his ersatz eggs again.

When Brazil got up to walk without Gates, he could feel the eyes on his back, or thought he could. Here go the heroes, he thought. First landing. Hail, hail.

And deep inside he felt a pride and joy so fierce he was embarrassed to admit it to himself — to be one of the first Earthmen stepping onto this unknown world.

BRIEFING was normal for a mission this size. The twenty planeteers who were going down into atmosphere, plus two reserve crews, slouched in their seats and

scribbled notes and smoked and whispered back and forth about business, concentrating so intently on the job at hand that an outsider might have thought them bored and distracted.

Captain Dietrich, boss of the *Yuan Chwang*, mounted the low dais in the front of the briefing room. He was a rather small man, of mild and bookish appearance. After working with him for a while, you tended to treat cautiously all small men of mild and bookish appearance.

Tribune Chandragupta entered the briefing room through the rear door. The Captain eyed him thoughtfully. This was the first voyage on which he had been required to carry a Tribune; the idea had been born as a political move in the committee meetings of Earth Parliament, and had earned certain legislators reputations as defenders of liberty, albeit only the liberty of certain as yet unmet aliens.

Captain Dietrich had no wish to conquer anyone, having of course passed the Space Force psych tests, and he was willing to give the Tribune system a trial. After all, he could always overrule the man, on condition he thought it necessary for the safety of members of the expedition—though he was the only one aboard who could do so. But it seemed to the Captain that this

placing of a civilian official aboard his ship might be only the start of an effort by the groundbound government to encroach upon the domain of the Space Force. Every time he went home he heard complaints that the SF was growing too powerful and cost too much.

"Militarism," they would say, over a drink or anywhere he met civilians. "We've just managed to really get away from all that on Earth, and now you want to start all over, on Mars and Ganymede and this new military base on Aldebaran 2."

"The Martian Colony is hardly a military base," he would remind them patiently. "It now has its own independent civilian government and sends representatives to Earth Parliament. The Space Force has practically pulled out of Mars altogether. Ganymede is a training base. Aldebaran 2 you're right about, mostly; and we do have other military bases."

"Aha! Now how do we know that none of these outlying bases or colonies will ever threaten Earth?"

"Because all spaceships and strategic weapons are controlled by the SF, and the SF is controlled by the psych tests that screen people trying to enter it. Admittedly, no system is perfect, but what are our alternatives?"

"We could destroy all strategic weapons," they might say. Or:

"We could cut down on this space exploration, maybe stop it altogether. It's devilish expensive, and there seems no hope it will ever relieve our crowding on Earth. What do we get out of it anyway that makes it really profitable?"

"Well," Captain Dietrich might say, "since you talk of militarism, I will ignore the valuable knowledge we have gained by exploration, and answer you in military terms. We have the ability to travel hundreds of light-years in a matter of months, and to melt any known planet in minutes, with one ship delivering one weapon. How many other races do you think live in our galaxy with similar capabilities?"

NO Earthman had met any but primitive aliens — yet. But people had begun to comprehend the magnitude of the galaxy, where man's hundred-light-year radius of domination gave him no more than a Jamestown Colony.

"Assume a race with such capabilities," the Captain might continue, "and with motivations we might not be able to understand, spreading out across the galaxy as we are. Would you rather have them discover our military base on Aldebaran this year, or find all humanity crowded on one unprotected Earth, perhaps the year after next?"

Dietrich got a wide range of answers to this question. He himself would much prefer to meet the hypothetical advanced aliens a thousand light-years or more from Earth, with a number of large and effective military bases in between.

But right now it was time for him to start briefing his planet-eers, who probably knew as much about Aqua as he, who had never driven a scoutship into her upper atmosphere.

"Gentlemen, we've found out a little about this planet, the only child of a Sol-type sun, after watching it for six weeks. One point one AU from its sun, gravity point nine five, diameter point nine, eighty-five per cent of surface is water. Oxy-nitrogen atmosphere, about fifteen thousand feet equivalent. We won't try breathing it for some time yet. Full suits until further notice.

"What land there is is probably quite well populated with what we think are humanoids with a technical level probably nowhere higher than that of medieval Europe. Several rather large sailing ships have been spotted in coastal waters. There are only a couple of long paved roads, and none of the cities are electrically lit on night side. We don't think anyone down there can have spotted us yet."

Most of his audience looked

back at him rather impatiently, as if to say: We know all this. We're the ones who found it out.

But the Captain wanted to make sure they all had the basic facts in proper focus. "The main objective of this mission is to make a first contact with the natives with the purpose of finding a way to establish a temporary scientific base on the surface, to continue our investigation here with seismic studies, biological studies, and so forth—and of course to see what we can learn from and about the intelligent inhabitants."

THE Captain raised his eyes and spoke as much to the Tribune as to his planet-eers. "There seems very little chance of any permanent colony being established here, due to the inadequate air, and the native population on a very limited land area. This same apparently high population would seem to preclude any chance of establishing our temporary base in some remote area, without knowledge of the natives. So we will have to deal with them somehow from the start.

"I've never believed in the god-from-the-sky approach, and you know SF policy is to avoid it if possible. It injects a false note into what may become a permanent relationship, even if we

intend it now to be temporary. And he who takes godhood upon himself is likely to have to spend more time at it than at the business for which he came, and to assume responsibility for far-reaching changes in the native history.

"We've met enough primitive races to know that some change is bound to result from any contact, but SF policy is to keep it at a minimum and to try to make it beneficial."

The Captain paused, then looked at another man who stood waiting to speak, paper in his hand. "Meteorology?"

"Roger, sir."

On a wall appeared a photo-map of the island that had been picked for the first landing attempt, an irregular shape of land about a hundred miles long by ten wide. Air temperature at dawn in the landing area should be about fifty degrees F, the water a little cooler. There might be enough fog to aid the landing scoutship in an unseen descent.

Meteorology also discussed characteristics of the atmosphere that might affect radio and video communication between scouts and mother ship, and predicted the weather in the landing area for the next twenty-four hours. He paused to answer a couple of questions, and introduced Passive Detection.

The PD man discussed Aqua's Van Allen belts, magnetic field, the variety and amount of solar radiation in nearby space and that to be expected on the surface, and what the natives probably burned for heat and light in the nightside cities. He confirmed the apparent absence of any advanced technology below.

Biology was next, with a prediction that the island would show diverse and active life. It was near the tropics in the spring hemisphere, and green with vegetation. Scout photos showed no evidence of very large animals or plants. Some areas appeared to be under cultivation.

Anthropology took the dais to speculate. The people of Aqua were thought to be humanoid, but in the photos anything as small as a man was at the very limit of visibility, and the estimate of the creatures' appearance was based on lucky shots of dawn or dusk shadows striding gigantic across more or less level ground. Inhabitants of such a watery world would be expected to be sailors, and indeed ships had been photographed. There was some massive construction, probably masonry, in the one sizable city on the island. A sea wall and a couple of large structures had been built on a finger of land that protected the city's small harbor.

CAPTAIN Dietrich came back to outline the patterns he wanted the non-landing scouts to fly. "The target island is pretty well isolated from the planet's main land areas, so if we put a base here it should have minimal effect on native culture. Also, if we botch things up here, we may be able to move on and try again without the natives in the new spot having heard of us." He looked around at his men; the idea was strongly conveyed to them that the Captain preferred they not botch things up. "Chan — anything you want to say? No? All right, board your scouts."

Brazil strode beside Gates out the door in the rear of the briefing room, passing under the sign that read:

MAYBE . . . ANYTHING

Maybe they're real telepaths down there. Maybe they're a mighty race now retired from active competition and preferring the simple life. Maybe . . .

Maybe nothing, Brazil told himself, quick-stepping beside Sam Gates along the corridor past the doors of scoutship berths that occupied this part of the hull of the *Yuan Chwang*. The time was for the planeteer's motto: Go Down and Find Out.

The main preflight check had been run yesterday. Gates and

Brazil now faced the final quick Medical & Psych in the corridor. Brazil had long since given up trying to startle the psych doc by giving to the inevitable weird question an even weirder answer.

"I'd swear you were sane if I didn't know you better," the doctor told him this time. "Pass on."

They fitted themselves into the suits of armor, light, space and ground, that had been selected for this job. The suits included among their accessories flotation bubbles that when inflated enabled the wearers to maneuver with supposed ease through several hundred feet of water. The suits now received a quick semi-final test.

Captain Dietrich was waiting in the berth that was almost filled by the fifty-foot-long stubby bulk of scoutship *Alpha*. Gates and Brazil juggled checklists and fish-bowl helmets to offer him each an armored paw to shake. The captain said something about good luck.

The two planetees climbed through the scout's hatch, twisting sideways with practiced movements to meet the ninety-degree shift in artificial gravity between mother ship and scout. Gates climbed on toward the control room while Brazil stayed to seal the hatch. On planet they would of course use an airlock.

Engines started. Ship's power

off and disconnected. All personnel out of berth. Ready for sterilizing.

Lethal gas, swirling around the scout's hull, was mostly pumped away to be saved and reused. Then a blast of ultraviolet, more intense than the raw Sol-type sunshine outside, bathed the inside of the berth. No microorganisms must be carried down into atmosphere.

STRAPPED and clamped into control room chairs, ports sealed, watching the tiny world of the berth by video screen, Gates and Brazil were nearly ready. The berth door slid open on schedule, and what was left of gas inside went out in a faint puff of sudden mist.

The watery world that someone with little imagination had named Aqua, ten thousand miles away, filled the opening. A quarter of it was dayside, blue-black as a fluorescent bruise; nightside was eerie with subtle atmospheric glows.

"Stand by one, *Alpha*," came over the radio. "A little trouble clearing *Delta*."

"Roger," said Sam Gates. "Hey, Boris, I like those video stories at home. The guy just drives his ship up to a new planet and lands. The faithful crew stands around scratching their heads. 'Well, what'll we do now?' says

one. Then they wait for some hero to speak up."

"Let's get out and look around," said Brazil, grinning. "O.K., but let's all be careful. Maybe we better close the door of the ship after us."

Sam gave a rare smile. "Then one shmoe takes his helmet off to eat a coconut. Only it turns out to be a chieftain's daughter."

"And they're all in the soup. They never seem to learn."

"Stand by, *Alpha*," said Operations over the radio, unnecessarily.

Gates pointed to the slim volume wedged under an arm of Brazil's chair, secured, like everything else aboard, against some possible overloading or failure of the artificial gravity on the coming flight into the unknown.

"What's the book this time?"

"Thoreau. I thought I might need some philosophy if you get us stuck in the mud for a couple days down there."

"Always meant to read the old nature lover through some day." Gates nodded at the screens showing the waiting planet. "Wonder what he would have thought of all this."

Brazil looked at the Passive Detection screen, where the image of the planet showed the dawnline creeping imperceptibly across upper atmosphere as a rainbow of varying ionization

and light pressure. He smiled at a sudden recollection. "Ha. Maybe he wouldn't've been so surprised as you might think." He quoted: "*Walden Pond* — let's see — 'A field of water betrays the spirit that is in the air. It is continually receiving new life and motion from above . . . I see where the breeze dashes across it by the streaks or flakes of light. It is remarkable that we can look down on its surface. We shall, perhaps, look down thus on the surface of air at length, and mark where a still subtler spirit sweeps over it.' "

"He wrote that in the middle of the nineteenth century?" asked Gates, astonished. "Let me see that book when you're done with it."

"You're clear for takeoff, *Alpha*. Good luck," said the radio.

Scoutship *Alpha* outraced the dawnline by an hour to the island and eased down on schedule, without hurry, into thicker and thicker air, until it entered pre-dawn darkness and fog. Gates used his radar for the first time, to work his way down toward the water a quarter of a mile off the rocky coastline.

Aqua was Brazil's ninth new planet, but I won't forget this one, he thought in some corner of his brain not used for watching and interpreting screens.

And he was right.

THE plan called for an offshore landing unseen by the natives, the concealment of the scoutship in about a hundred feet of water as near land as possible, and the going ashore of Gates and Brazil in protective suits to make contact with the local intelligent life. Tight-beam communication was to be maintained at all times with the *Yuan Chwang*. A small video eye rode above each planeteer's left ear; whatever the eye saw was transmitted to the mother ship.

The versatile and roughly humanoid robot that accompanied every scoutship (following men onto new planets but never leading them) would be left in the submerged scout, and would bring it to the human crew if they summoned it by radio.

The *Yuan Chwang* was not orbiting Aqua, but hovering and trying to keep its quarter-mile-diameter bulk invisible, ten thousand miles above the island. The other scouts were cruising in upper atmosphere in the general area of the target island, observing what they could. The plan might be altered or abandoned at any step at the Chief Planeteer's discretion, or by order from above.

Detection screens picked out what looked to Brazil like the infra-red pattern of smoldering fires and fainter body heats of

a small village where the recon photos had shown a village to be. Gates worked the scout by radar to an offshore point half a mile from the village, which lay on the shore of a small cove. He dipped the scout low enough to put a sonar probe under water and get a picture of the bottom.

"Nothing strange down there," said Gates. "We'll go ahead."

Cutting in automatic stabilizers, he lowered the scout into and through choppy water and made slowly toward shore, while Brazil studied the ocean and bottom, trying to read half a dozen presentations at once.

Near the rocky upthrust of land, Gates let the little ship settle gently down onto sandy bottom. He summoned the robot and told it to use enough drive to prevent sinking into the bottom. The robot got into the pilot's seat as the humans checklisted themselves into helmets, out of the control room, and into the lock. They stood with legs spread and arms raised while gas and UV sterilized their suits and the chamber.

Gates nodded and Brazil opened a valve to let alien sea into the lock; in a few seconds they stepped out of the world of checklists and into dark water. Brazil lingered to feel that the lock door was secured behind them, let gas into his flotation

bubbles, and followed Gates up through the darkness. Once something like a luminous smokering curled greenly past them through the water.

"Can you bliphate the distance phlooh that?" asked a voice from the *Yuan Chwang*, half-strangled by transmission through space, air, and water.

"Hard to say; I'd guess only a few yards," Gates answered, waiting until his head had broken surface and he had taken a look around. Brazil was right behind him; he could barely see Gates' helmet above the water ten feet away. The rough rock face of the coastline was only a vaguely deeper darkness at one side. They paddled toward it; waves sloshed them against it; they gripped it and began to climb.

EARTHMEN emerged onto the land of a new world, looking more like primeval lungfish than conquering demigods.

They climbed rock uncertainly and slowly and halted at the top of a small gentle cliff. The suits were engineered for easy movement and reasonable comfort for twenty-four continuous sealed-in hours in almost any environment. Old planeteeers sometimes said soberly that they needed a suit on to feel comfortable but they usually preferred to take the suit off before sitting

down to discuss. How comfortably they wore it.

"Wait for a little more light," said Gates' radio voice.

Brazil sat down beside a large rock and tried to see what was on the inland slope away from the cliff.

The sun was not far below the hilly horizon now and a gray pre-dawn light made the scene gradually intelligible. A faint excuse for a road wandered along a few yards away, roughly paralleling the shoreline; it might be a cattle path that led toward the village. Beyond the road were fields with a semi-cultivated look, holding orderly rows of squat bushes above a mat of low-growing vines that seemed to cover most of the ground in sight. Green hills rose beyond the fields.

The dawn brightened slowly. To Brazil, sunrises always brought awe, whether he saw them on an outworld or on crowded Earth, or across the red deserts of the world to which his parents had emigrated and where he had been born. Sitting on this alien rock with sea water dripping from his armor and his hand on a gunbutt, he thought: First Landing; it's like a First Morning. Let there be light.

"Light enough," said Gates. "Let's get started."

They walked on crunching vines to the road, heads swiveling

constantly and air microphones tuned to high sensitivity. Brazil caught himself listening for the ape howling that had accompanied each new morning on his last new planet. It wasn't good to carry such mental baggage when stepping into an unknown environment. He would have to unload it.

They paced along the faint road toward the village. The hard-packed brownish soil of the road showed no trace of whatever traveled here.

"Smoke ahead," said Gates suddenly. It was a barely visible thin vertical tracery in the sky, rising not far away.

The road curved around a craggy little hill; when they had rounded this, the village was before them. Large rowboats were beached on the sand of a small sheltered cove. Forty or fifty yards back from the water stood about twenty huts, built mainly from what looked like mats of the groundvine. A small stream trickled through the village, flowing from the direction of a structure like a low fortress, beyond the huts and much larger than any of them. Its dark walls of mud or clay or stone were surrounded by a considerable space cleared of all vegetation.

Brazil turned his head to one side and saw his first native. His stomach went cold and he said

to Gates: "On the rock up there. Look."

THE native was undoubtedly humanoid and had apparently been dead a long time. He was bound somehow with vines to the crag that almost overhung the road, ten or fifteen feet above the Earthmen, and around his neck hung a placard that looked like cardboard, bearing a short inscription in bold characters resembling Arabic. He had been a tall man in life, by Earthly standards, and long strands of pale hair were still in evidence.

"Get this?" asked Gates of the observers in the sky.

"Roger. You're going on?"

"Don't see why not."

"We never mind these 'No Trespassing' signs," said Brazil, with an attempt at flippancy he didn't feel. Dead men were nothing new to him, but this one had a considerable resemblance to himself, and had, so to speak, sneaked up on him.

There were no living people yet in sight, but there were shrill cries in the dawn from the village, and a small flock of hawklike birds with oversized wings sprang up into flight from among the huts. The birds were green and vivid orange against the misty sky and flew circling over the village.

"Let's go," said Gates.

They began down the sloping road toward the huts, trying to look confident but not frightening.

At an open gateway in the wall of the fortified structure a figure appeared, a red-haired man dressed in dark jerkin and leggings and boots, with breastplate of silvery metal that matched the round helmet he carried in one hand. In the other was a spear. He stretched himself and yawned, and appeared to be trying to scratch his ribs with the helmet. He was still a good distance away and gave no sign that he had spotted two aliens in strange suits walking into his town.

The birds were more alert. The cries of the circling flock changed suddenly in tone, and in a moment it had become a living arrow launched at Gates and Brazil.

The two Earthmen stopped, each considering the possibility of mowing down the birds with stun pistols — which should have a disorganizing but not fatal effect on any complex nervous system — before the flock could strike them as it seemed it must, and both rejecting the idea, like twin channels of a single computer. The armored suits were tougher than any bird was likely to be; leave defense to the suits and don't hurt the native pets.

The flock broke off before con-

tact, to circle the intruders in a blurred uproar of wings and claws, but several birds scraped the helmets, which were almost invisible in mild light, and one tore head-on at Brazil's apparently unprotected face, possibly meaning to veer away an inch from his eyes.

The thud of impact was impressive; when Brazil's eyes opened from the reflex blink, the bird was flopping on the ground with something badly broken. He picked it up, intending to impress the natives with his friendliness by treating kindly their pet that had attacked him, and also to suggest to them that it was futile to attack; but it struggled and fought his armored hands so he could do nothing else if he tried to hold it.

HE SET it gently down again as the first natives came blinking and shivering out of their huts to see what all the noise was about, some of them still pulling on scanty rags of clothing. They were all of a type with the body on the rock, blond, tall humanoids with deep chests and slender limbs; in the living people were visible a dozen small distinctions of facial and bodily proportion that added up to an obvious but not at first definable difference from any Earthman.

The red-haired man of the

fortress had ducked inside the gateway, which was still open. A domestic-looking animal with plumes on its head looked out at the strangers with interest.

The blond natives stood together in front of their huts, as if waiting for a group picture to be taken, gaping at their visitors in silence. The watchbird flock still screamed and flew, now in widening circles, having given up assault at least temporarily.

Gates kept moving forward until he stood near the center of the cleared space between beach and huts. Brazil stopped beside him there and they stood almost motionless, smiling, arms spread with hands open, in the approved position for approaching Apparent Primitives who seem timid. The sun stood over the horizon now, dissipating the morning fog.

Brazil became aware that the whole crowd was watching *him*. Only now and then did one shoot a quick glance at Gates, as if puzzled about something.

Gates spoke via throat mike and radio, without moving his smiling lips. "You look like 'em, boy. I think you better play leader. They may have never seen anyone dark as me before."

Brazil made the practiced throat-muscle movement that switched on his speaker and opened his mouth to begin the greeting of his public with sooth-

ing sounds. He was interrupted by Sam's voice in his ear again. "Coming from the fort."

Six Apparent Primitives who looked anything but timid were marching in sloppy formation down the slope from the walled structure, straight toward the Earthmen, bearing spears and facial expressions that Brazil could not interpret as meaning anything good. They were all red-haired and armored, muscular, well fed, and bulbous-nosed, evidently of a different tribe or race than the blond hut dwellers.

Brazil's barefoot audience watched the warriors' approach nervously and began to fade back into their huts. But one of the older men who had been staring Brazil in the eye with an expression of mounting and intense emotion — the planeteer grew edgy at not being able to decide what emotion — now sprang forward in serious excitement, to grab Brazil, by the arm and harangue him with the first native speech he had heard, looking at him with the gaze of a pleading worshiper.

The six red warriors were very near and didn't look happy at all. They also seemed to be concentrating on Brazil.

WITH a cry of seeming despair, the old man tore himself away from Brazil and fled

toward a hut as if in mortal terror.

One of the approaching warriors threw his spear with a whipping expert motion; it caught the old man in the back and sent him dying on his face in the sand.

"Well, I'll be—" Boris Brazil roared out the first Earth words into the air of Aqua.

The red-haired warriors stood before him, eying him with what he interpreted as incredulous contempt. One of them barked something that he thought he could almost translate: "What are you doing, you blond peasant clod, dressed up in that outlandish armor?" He probably looked more like a blond native in the suit, with his physical proportions somewhat concealed, than he would without it.

The one who had speared the old man started walking toward his victim, maybe to retrieve his weapon. Brazil started that way too, with no clear idea of what he was going to do, but with the feeling that the old man had appealed to him in vain for help.

As Brazil started to move, the five other spears were suddenly leveled at him. A hysterical blond boy ran out of a hut to kneel beside the old man and scream something that sounded nasty at the approaching warrior. Gates was standing motionless a few

yards away. A spear thrust fast and hard against Brazil's chest with plain intent to kill, setting him back on his heels; a lordly voice from the *Yuan Chwang* said in his ear, "This is not our affair." Brazil grabbed the thrusting spear in his left hand, jerked its owner forward off balance, and delivered with his armored right fist what seemed an appropriate greeting to an Apparent Primitive Attempting Murder of Earthman.

The blow knocked the man out from under his helmet and dropped him to the sand. Spears rocked Boris from all sides, clashed and slid around his helmet. He caught a glimpse of the sixth warrior kicking the boy, knocking him over, and pulling a short axe from his belt for a finishing blow.

The arm swinging back the axe suddenly released it; the weapon spun through the air to land yards away and the warrior sat down suddenly and nervelessly. Sam Gates had decided it was time for stun pistols.

Before Brazil had reached the same conclusion, the four remaining spearmen had given up trying to stick him through his suit and were grabbing at his arms to hold him. Gates potted two more of them, in the legs, with silent and invisible force. The remaining two abandoned the fight and backed away to-

ward their stronghold with spears leveled, shouting what was no doubt a call for reinforcements. The red that Brazil had felled got up and tottered dazedly after them.

"Let's get out of here," said Gates.

Brazil's eye swept around. The old man was dead, the spear still in him. The young boy who had been kicked was lying unconscious right in front of a warrior who was going to be considerably annoyed as soon as he felt a little better. Brazil scooped the child up and got him over his shoulders in a fireman's carry and looked at Gates, who gave a sort of facial shrug, as if to say: If we can save a life, there's no need to ponder possible bad consequences, since this whole operation looks like a fizzle now anyway.

THEY strode at a good pace out of the village as the watchbirds screamed a cheerful farewell. A few reds were milling around the gateway of the fort as the Earthmen went over the rise and out of sight, but no organized pursuit was yet visible. Once out of sight of the village they began a steady loping run, the small body bouncing on Brazil's shoulders. Gates called for the robot to bring the scout up to the surface at the shoreline.

"This is the Tribune," said a voice. "What do you intend doing with that child?"

"Saving his neck," said Gates. "Maybe we can learn something from him too."

They ran with stun pistols drawn, spinning around frequently to see if anyone followed them. No one pursued.

Brazil was gasping when he finished the climb down the rocks to the shoreline and set his unconscious burden — no, half conscious now, with a swelling lump on the forehead — down inside the airlock. The outer door shut behind Gates and the robot had the scout underwater and moving out to sea in a moment.

Entertaining an alien aboard a scoutship was something the Space Force had learned to plan for ahead of time. A door in the back of a suit locker led from the airlock into the tiny Alien Room, into which Gates was now feeding atmosphere from outside, via snorkel and remote control. When the room was ready, Brazil carried the boy into it, sealing the door behind him. Gates could now decontaminate in the airlock, and go to the control room. Brazil would have to wear suit and helmet for a while yet.

Medical was already on the communicator in the Alien Room when Brazil turned to look at the screen, after putting the kid



down on the bed-acceleration couch that took up most of the room, checking the air pressure and setting the temperature up a few degrees.

"Kid doesn't look too bad off," Brazil told the doctor. He smiled reassuringly at the boy, who was now fully conscious and lay watching with wide eyes and a growing yellowish lump on his forehead. He might be ten or eleven years old, judged by Earth standards.

"Keep him quiet. And get us a blood sample as soon as possible. Do you think we'll have to feed him?"

"Yes. If we can keep him for a week or two we should get the language and a good line on the local culture. We've got synthetic proteins and simple sugars on the scout, of course, so I guess he won't starve — but I'll try for your blood sample first. And listen, this may be important — I'm turning off the video screen for now, so it won't alarm him. But when it's on again, keep anyone with red hair off it. Use blond, noble, handsome people like me if possible."

Brazil started to call Sam on the intercom, but through a valve into the Alien Room came sterile blankets and a painless blood sample syringe, before he could ask for them.

Chandragupta's voice came

into his helmet: "This is the Tribune. I have little complaint of your actions so far, except that your striking that man with your fist served no good purpose. But I must forbid you to keep that child any longer than is necessary for his own welfare."

"How long will that be, Chan?" asked Captain Dietrich's voice, getting no immediate answer. "Would the boy be welcomed home, or speared like that old man, or what? I think we'd better learn the language and customs before trying to decide. And as for Brazil's hitting that man—"

A debate went on. Brazil listened with half an ear while he covered his guest with blankets and sat beside him, trying to inspire confidence.

"It's all right, sonny, it's all right." I hope, he thought. He patted the boy gently with his armored hand. That was the only treatment he dared attempt until he knew considerably more about the biology of his guest.

And the guest could be very valuable. Children made good subjects for First Contact as a rule, if they were not too young. Their minds adapted quickly to the alien. They caught on quickly to the game of language teaching. And they were likely to give an honest and direct view of their own culture.

Brazil handed the blood-sample

syringe to the boy after locking the plunger. The kid took it after a brief hesitation, looked it over cautiously, then gave a sudden shy smile and said something that might have been a question. If his head was bothering him he gave no sign of it.

Brazil answered with some kindly nonsense and took the syringe back. He made a show of rubbing it on his own suited arm, turning his head to the other side as he did so. Then he turned the boy's head gently away and got his blood sample without fuss, on the first try. He valved the loaded syringe out into the airlock, where the robot came to load it into a courier tube that would carry it up to the *Yuan Chwang*.

EARTH and Aqua life turned out to be too alien to one another for infectious disease to pose a problem either way. Brazil shed his suit with relief.

The courier tube returned before sunset with containers of vile looking gunk that Supply swore would feed the boy, whose name was approximately Tim. Tim tasted the stuff but looked unhappy, so Gates went out spearfishing. Tim was pleased with some of the assortment and ate it raw, while turning down the rest in disgust. He seemed to be suffering no after effects

from the kick in the head, but Brazil did his best to keep him quiet anyway.

For the next few days the scout stayed well out at sea, mostly submerged.

Brazil spent most of his time in the Alien Room, pretending to learn Tim's language almost as fast as he could hear the words, while the linguistically expert brains, human and mechanical, aboard the *Yuan Chwang*, looked and listened over his shoulder. They forgot nothing, and spoke into his ear, prompting him on what to say next.

Tim became restlessly active after getting over his first awed fascination with video screen, doors, acceleration couch and plumbing. When told he was aboard a ship, he wanted to see it all. Brazil kept the robot, at least, out of Tim's sight, and had to struggle to learn more than he taught. He played games with Tim to give him exercise, and to gather data on his physical strength and dexterity.

The hungry brains aboard the *Yuan Chwang* devoured Tim's language. Within two weeks they had fed it by memory tape to every planeteer. A few days of practice would give them command of it.

It was time for a major conference. The two planeteers on surface sat in with Captain

Dietrich and the department heads above, via communicator, while Tim was confined discontentedly to the Alien Room.

"Gentlemen, we have a choice between two main courses of action," the Captain began. "We can try again to establish relations with the natives of this island, on some friendly basis, or we can pull out and start over somewhere else, and hope we don't get into a brawl with the local authorities at the start." The Captain was not chewing out his planet-eers for the fight; when he chewed, there was never anything equivocal about his words.

"Those authorities I didn't mind brawling with," said Gates.

The Captain went on. "I think we can agree that our only major problem on this island is likely to be intercultural?"

NO ONE disputed him. There were no horrendous non-intelligent life forms, volcanos or other insuperable acts of nature in evidence on the target island.

"I'd like to say that I hope we *can* find a way to set up a base on this island," said Biology. "That luminous water-ring was fascinating, even though I'm not sure it's in my field. And that groundvine . . ."

"We can't complete our gravitic tables for this system without seismic measurements of the

planet," put in Geology. "That island still looks like a good place to me."

"Well, then — does everyone think we should try the island again?" The Captain looked around as if a bit surprised.

"We've got the language here now," said Brazil. "Our tapes show the red tribe's speech is nearly the same as Tim's. And they're already trying to kill us on sight, so what can we lose by another try?"

"We can cause considerable damage to the people of this island if we are not careful, Mr. Brazil," said Chandragupta sharply. "Indeed, we may have caused damage already, by inserting ourselves into a situation of considerable tension between two tribes—though any harm we may have done was accidental and I do not blame you for it. Yet we are not on this world by invitation, and so we must assume a certain responsibility for such accidents."

"You mean that sociological damage has been caused by our visit?" asked the Captain. He had already heard all about it, but he wanted the subject talked over now.

"I think I can explain that," said Sociology, clearing his throat. "The data we have from Tim fit in with what we saw on First Contact. Everything indi-

cates that conditions on the island may be ripe for civil war.

"The picture is this: a local settled tribe, fishermen and part-time farmers—the Blonds, as we have come to call them—invaded and conquered by a warrior tribe of the Viking type, probably fewer in numbers. The invaders seem to have come from the smaller islands farther north. Perhaps they were driven out themselves by someone else. Now they have settled down here as a ruling class. Tim says this invasion was a very long time ago, before he was born, but that his grandfather—the old man who unfortunately was killed during our First Contact—could remember a time when there were no Reds on the island, and his people were free. We make the invasion to have been about fifty years ago. We've seen no evidence of intermarriage, although in fact we've seen none of the Red women or children yet."

"Tim talks of a day when his people will rise up and destroy the Reds," said Brazil. "The dream of his young life seems to be to find a way to slaughter them wholesale. He wants me to lead the revolution. I have the feeling though that he doesn't really hate them, or didn't until grandpa bit the dust. It's mainly just a sort of exciting game in his mind. But I don't doubt he

would wipe them out if given a chance. Someone has talked a lot of revolution to him, that's for sure.

"Tim's grandfather thought I was a tribal folk-hero, come back from the great beyond or somewhere, wearing strange armor, to lead them out of slavery. That's what the old man was talking to me about. I suppose that's why they speared him. It's on the tape, of course, if any of you haven't seen it. Now I can understand what he was saying." Brazil fell moodily silent.

"I suppose the First Contact incident might have touched off a Blond rebellion?" someone asked.

"If conditions had been just right, yes," said Sociology. "Apparently they were not."

CAPTAIN Dietrich spoke up: "During the last five days we've made numerous high speed photo runs with recon robots from as low as five miles on clear days. If there were any riots or open warfare in progress, we'd be pretty sure to spot it."

"How about that body lashed to the rock?" someone asked after a brief pause. "Have we learned anything on that?"

"Tim can't read or write," said Sociology. "So neither can we, yet. So we don't know what the placard hung around the fellow's neck says. Tim says the Reds

put him up there because they were angry at him. Seems reasonable, if not illuminating."

"Captain, I wish we had made such photo runs as you now mention before First Contact," said the Tribune.

"We weren't sure of their technological level then," said the Captain, a little wearily. "We didn't want them to spot us flying over. It's one of those choices you have to make. We didn't want to shock them by appearing as gods, remember?"

The discussion flowed on for a while. Finally Dietrich brought it back to his original question: "Shall we continue to try for a base on this island, or shall we move on?"

"Let's try again here, since we've got a start," said Gates. "If we can't make it, we can always move on to another island."

Chandragupta: "The question I must insist we try to answer, Mr. Gates, is this: How can we be helpful to the people of this island, where we have already interfered?"

The Captain: "Chan, we didn't come all this way to open a social service bureau."

"I realize that, Captain." Grimly. "Nevertheless, I consider our effect upon the natives more important than seismic measurements. I would like to ask if you plan to conclude an agreement

with the authorities controlling those Red soldiers, for a scientific base on the island?"

"I'm considering it."

"I believe our doing so would in effect recognize their authority to live as they do, holding another tribe in slavery."

Sociology raised his eyebrows. "What do you mean by slavery? It would be unusual if it could not be found in some form at this level."

"Perhaps I should have been more precise. I consider it evil that a member of the ruling class should have it in his power to take at any time the life of one of the lower class, as we have seen here. I think we are now bound to try to correct such a condition. Of course I do not expect that we shall be able, or should attempt, to establish our idea of a perfect society here. But I think we must try to set these people on the road to greater freedom and justice." Chandragupta raised his voice above several protesting ones. "We are already committed to interference here, in my view. We must now see that the changes we produce are for the better."

The Captain smiled faintly. "Are you arguing for the revolution now, Chan?"

"I think you know better." The Tribune was somewhat irritated. "We could hardly expect the total

effect of a general armed uprising to be beneficial."

"Just what do you think we should do, then, to start these people on the road to greater freedom and justice, as you put it?"

Chandragupta sighed. "I think we must first investigate them further, to learn how best to help."

There was a little silence.

"Anyone got further comment he thinks important?" asked the Captain. "All right, this is it. We continue work on this island. We try to stabilize native affairs on as just a basis as possible, and then deal for our base. Boris, you say Tim has relatives in an inland village who can hide him out from the Reds if need be?"

"So he tells me."

"All right. Take him to this inland village, tonight or tomorrow night. Talk with some of the adults there. Especially try to find out more about the political situation. Is there a Blond resistance group, how strong, and so on. Since we seem to be committed to some sort of interference here, we'd better get all the data we can, and quickly. Any questions?"

THE following night was dark and foggy. Gates drove the scoutship silently and he hoped invisibly over the island's hills

toward the village of Tim's relatives. They boy acted as pilot, guiding an electronically presented green spot over a contour map of the island, with an air of sophistication. He had, he said, seen maps before, if not flying machines. But he was excited at the prospect of showing off Brazil in armor to people he knew, and telling them of the wonders he had seen. Brazil had given him orders to keep the scoutship's flying powers secret if possible.

Brazil changed the scale of the map to show only the area within a mile of the village. Tim guided Gates to a clear landing spot, out of sight of the village but within easy walking distance.

Gates brought the scout down quickly, probing below with radar and infrared, until the little ship settled with a crackle of crushed vines into a tiny hollow between hills. Gates left the autopilot on to keep the scout balanced on its tail at ground level, and joined Brazil in observing the outside world with instruments.

The chittering and movement of small life alarmed by their landing gradually quieted. There were no signs of human alarm.

Brazil suited up, for protection against other dangers than infection. He led Tim into the airlock, and paused for a final briefing.

"Now, who did we agree you

should look for in the village?"

"First of all I will look for Sunto. He is one of my cousins. He hates the Reds and is not afraid of them. If he is not home I will seek Lorto or Tammamo, who are the junior headmen of the village. Only if I can find none of those will I talk to my female cousins, who do not understand these things. I will try to avoid Tamotim, who I think is still the boss headman here. He likes the Reds and tells them things. If I see no one who is safe to talk to I will come back here and we will talk over what to do next."

"And if someone stops you and asks you questions?"

"I will not hide anything. I will just say there is a strange man out here who wants to speak with someone from the village. I know what to do, you don't have to worry. I won't say you are our Warrior Spirit, or anything like that. Unless there are Reds in the village, who capture me; then I will cry out for Warrior Spirit and you will come and kill them, eh?"

"My name's not Warrior Spirit. And if you see any Reds, just come back." Brazil opened the lock's outer door and they stepped out and down into matted vines. "Remember, just say I brought you over the hills if anyone asks how you come to be here. No

one else need know yet that my ship can fly."

"All right. Over that way is a path," said Tim, becoming oriented. "And that way is the village."

"Get going, then." Brazil sent him off with a gentle shove, and stood quietly, testing the alien night with artificially aided senses.

The sound of Tim's bare feet faded quickly on the path.

"I'll take her up a ways," said Gates on radio.

"Roger. I'll move over."

BRAZIL saw the dark bulk of the scoutship lift in silence that was almost eerie even to him, and drift up out of sight into fog and darkness. No stars to see tonight, he thought. Well, I've seen enough of them. For a while.

He found the path with his infrared lamp and waited just at one side of it. He hoped the kid wouldn't run into any trouble. About five minutes passed before the glass of his helmet, set for infrared translation, showed him some large life moving toward him along the trail from the village. "One — two of them, Sam, coming this way."

"Roger, I have them now."

"Boro?" His native name, called in a soft voice from the darkness.

Brazil switched his air mike on again. "Right here."

Tim approached him. "This is Tammamo with me, Boro. He is a junior headman."

Brazil gave the second vague shape a slight bow, which Tim had told him was the ordinary greeting between equals.

"Sam, keep a sharp eye out. We need to use a little light down here." Planeteers worked their air-mike switches for such asides as quickly and naturally as they used their tongues.

"Rog." Sam outdid himself in brevity.

Brazil turned on what he hoped was a dim and non-startling electric glow from a detachable suit lamp, revealing a Tammamo bug-eyed at being called out of his hut at night to meet what he might think was the Warrior Spirit.

Boris greeted him in a matter-of-fact, business-like way. Maybe the fact that he spoke the common language of the peasants put the junior headman more at ease.

Tammamo had heard a version of the First Contact incident which began with the Red garrison of the coastal village executing an old man for daring to worship the Sea God in a way reserved for rulers. Dying, the elder had called down a curse upon their heads, whereupon the

Warrior Spirit of the Blonds appeared, and slew sixty Reds with a sweep of his arm — or perhaps it had taken several arm-sweeps, the point was uncertain. A Red magician had been called upon by the enemy. He had evoked from somewhere a dark and evil spirit, also clad in armor. The Blond Warrior had departed to do battle with this other elsewhere, not wishing to devastate the entire island in the struggle, but it was expected he would win and return shortly to — and this point was whispered very cautiously — slay all the Red warriors and turn over their women and children to the Blonds as slaves.

Tammamo almost managed to look Brazil hopefully in the eye as he finished the tale.

TIM started to speak with the exasperated eagerness of a youngster to point out errors — or maybe in disappointment at being left out of the story altogether. But Brazil shushed him by putting a hand in front of his face. He spoke carefully to Tammamo.

"Junior headman — look at me carefully. I am only a man, nothing more. I am not a Warrior Spirit, or any kind of god. I am only a man from a far land, who looks like one of your people and wears armor that is strange to

you. Now I wish to speak in private with the leaders of your people — not with the headman who tells everything to the Reds, but to the leaders of your own people, who may not be known to everyone. Do you understand me?"

"If you say you are a man, so be it." Tammamo seemed to be shivering with more than the night chill. "The leaders you speak of — I do not know anything about such matters, except for stories heard by all. I am a junior headman, wishing no one to hate me. There is a man in the village who might know. His name is Sunto. I can tell him what you want when I meet him. Will that please you?"

"It will. And I think there is no need for you to speak of me to anyone else."

"I will not! I will not!"

"Then send Sunto here to meet me at this time tomorrow night. One thing more, junior headman — this boy goes to live now with his relatives in your village. I want you, Tammamo, to see to it that no harm comes to him from the Reds. As I said, I am only a man, yet I can do many things. I would be quite angry if the Reds were to harm this boy. Do you understand?"

Tammamo indicated vehemently that he understood. Obviously he wished himself a hun-

dred miles at sea, or anywhere out of this situation.

"Tim, keep out of trouble. Go, both of you, and send me Sunto here tomorrow night."

Evidently it was not a Blond habit to waste any time in farewells.

Brazil watched them out of sight, realizing suddenly he was going to miss having the kid around. "Okay, Sam, you can bring her down."

Trudging to where the scout was crackling down into vines, Brazil paused and looked up toward the invisible nose with a sudden grin.

"Hey, dark and evil spirit," he called via radio. "How come you let that Red magician evoke you to fight me?"

"Shut up and get in."

SUNTO appeared at the appointed place on the following night, escorted by Tim. This time the scout had not landed; Brazil was lowered the last few hundred feet by cable.

Sunto seemed less timid than Tammamo. He too had heard of the First Contact fight, but was shrewd enough to realize how events could change in the seeing and retelling of them. He professed no doubt that Brazil was only a man, and a friend of the Blonds. Would he arrange a meeting with the Blond leaders?

Certainly. There was going to be a meeting of those leaders in the remote hills, three nights from now. Boro could come to it if he wished, there would be many large fires at the meeting place so it would be easy to find. Was Boro living in the hills now?

Did everyone know about this meeting, Brazil asked him. What if the Reds saw this large fire? Why had Tammamo been so timid about discussing Blond leaders?

Sunto did not quite understand; he used several new words in trying to answer the questions. Eventually the idea came across that this was going to be a religious meeting, and not political at all. He, Sunto, knew no more than that timid Tammamo about political matters. Of course the Reds would not interfere with this religious meeting; the Sea God might become angry with them if they did. True, the Reds controlled the Tower, but that didn't mean others couldn't hold meetings of this type, did it?

"Of course not," agreed Brazil soberly. He got a repeat on the time and place of the meeting, and went home to the scout.

They located the meeting without trouble, as Sunto had predicted. Brazil was lowered by cable again, a quarter mile from the circle of fires in the hills near the center of the island.

Gates held the scout overhead, ready for anything, while Brazil walked to the lighted area.

About fifty Blonds of both sexes were quietly busy with varied rituals within the illuminated circle. There were no detectable lookouts posted around the place, or any attempt at concealment.

Brazil watched for a little while, far enough away to be invisible to those near the fires. Then he walked slowly in on them, arms spread out in a gesture of peace. There seemed to be nothing frantic or very rigid about the ceremonies, so he had no great worry about interrupting.

Gradually they became aware of him, the nearer ones first. They stopped what they were at and turned to watch him with grave eyes. Within a few seconds all of them were standing still, calmly and silently watching him. Then a few of them moved slightly, opening a lane from where Brazil stood to a place near the center of the circle. He could see now a low structure of stone that stood there, a few feet square. It might be an altar.

"Any advice?" he subvocalized to the watchers above.

"Best thing I can think of is to bow in greeting and tell them to proceed with what they're doing," said some anonymous ex-

pert. No one argued with him. The final decision on what to do rested with Brazil, as it usually did with the planeteer — the man on the spot, with the responsibility. He was rarely given orders in any detail.

THIS time he accepted the advice offered from above. It seemed to go over all right. The attention of the Blond group turned from him to the central altar, where a few men and women began to perform some simple rites. The others stood watching with folded arms. Brazil folded his. No one was sitting down, and he resigned himself to what might be a long stand. An hour went by. He wished himself wearing armor, ground, heavy, with powered legs that would let you nap standing if you wished.

Not that he wanted to nap now. There was the ceremony to watch, although it had so far shown him little that was new or especially interesting. It had elements that Brazil had seen in life or on training tapes of a hundred primitive religions on a dozen planets.

But the climax of the ceremony was unique. A pair of muscular — deacons? Brazil could distinguish no one set apart as clergy — came from the darkness outside the waning fire-

light. They bore a large and heavy pottery vessel that wobbled in their grip as they carried it, as if it held a quantity of liquid.

Someone held a torch to illuminate the altar top. A slender tower about two feet high had been built of small flat pebbles, surrounded by a low wall of similar construction.

The men with the jar approached the rear of the altar and raised the vessel toward it, as a woman thrust a trough into position. They tipped the big jar evenly. What looked like clear water sluiced out of it, guided by the trough toward the pebble-tower. For a moment it looked to Brazil as if the little structure might withstand the flood, but some vital part of the base gave way suddenly. The men continued to tilt the vessel smoothly till it was empty. The tower toppled, taking with it part of the surrounding wall. It was washed piecemeal from the sloping altar by the last of the flood.

It hit them hard, Brazil could see, looking from one Blond face to another in the firelight. None of them stirred for a long minute. It was plain that the collapse of the tower had had some evil significance.

Tower? Sunto had mentioned a tower connected with the Sea God, and controlled by the Reds.

The Blonds seemed to shake

off some of their gloom. Again they were turning toward Brazil.

"Ceremony didn't turn out too well, I think," said the voice from the *Yuan Chwang*. "Just hope they don't blame it on you."

Once more everyone was watching Brazil, except for a couple of men who had begun to dismantle the altar.

Might as well get started, he thought. He switched on his air mike. He could not see most of his audience well in this light, and could not pick out anyone as leader.

HE spoke out loudly: "I am a man who has come from a far land, and I would learn what I can about the people here."

The faint stir and whispering among them ceased. All watched him with guarded faces. There was only the fire glow and crackle, and the twittering background of animals or insects.

"This—" Brazil realised he had no certain word for ritual or ceremony. "What you have done at this meeting is strange to me. If I can do so without giving offense, I would learn about it. Will someone here tell me?"

A light clear voice came from somewhere in the background: "Are you he of whom it is said, that he slew sixty Reds with a sweep of his arm?"

"It is said, but it is not true.

I fought with six of them, but I slew none."

"You fought with six of them, yet none of them slew you." The still anonymous voice used a more subtle grammar than Tim had taught, and had a slightly different accent. With his limited experience in listening to the natives, Brazil could not identify it as male or female. But it smelled of authority to him. He answered the implied question. "My armor is strong. And I had help from one who is wrongly called a dark demon, who is only a man like me, my countryman and friend."

"So have I heard it."

The speaker moved forward slowly into brighter firelight—a woman. Not a girl, and not an old woman, or middle-aged. Not the kind that a man will follow with his eyes from the first glance, but the kind he will turn to see again a quarter-minute later, and remember. So Brazil thought of her at first sight, and only remembered with a start the subtle unearthliness of her face and body.

"So have I heard it, from those who were there and saw with open eyes." She came close to Brazil, dressed as simply as the others. She studied him for a moment. "You speak with the tongue of a simple Blond peasant."

"It was one such who taught me."

"You learned well. What is your name?"

"In your tongue it is best said as Boro. And what is yours, if I may ask without giving offense?"

She smiled. "Certainly, there has never been a god so fearful of giving offense. My name is Ariton. Tell these people whether you are god or man. I fear some of them will still not believe what you told Sunto."

Brazil loudly pledged again his membership in humanity.

Ariton waved her hand, and her people turned away. Most of them went to sit in a circle around where the altar had been. They began a low-voiced chant.

SHE walked with Brazil a little away from the group, and tried to answer his questions about the ceremony he had witnessed. Her explanation was unintelligible with new words at first; finally he got her to simplify it enough for him to understand that the tiny tower on the altar had been an analog of a full sized structure in the island's chief city. The big Tower was sacred to the Sea God. Now it was monopolized by the Red priests, and beside it the king of the Reds, Galamand, had built a castle. At mentioning the king's

name, Ariton moved her foot as if grinding something into the dirt beneath her heel. Tim had sometimes done that when speaking of the Reds.

"And what did the water-pouring mean?"

"Maybe something bad." She looked at Brazil thoughtfully and raised a hand to touch his transparent helmet. "I have seen — before," she said, using a new word that he thought meant glass, from the context. "Now I will ask a question. Why could not the Reds slay you, when they attacked you with spears?"

"My armor is stronger than it looks."

"And why did you slay none of them?"

"There was no need."

"Those of my people who watched with open eyes say that you were angry at the slaying of an old man you did not know. Why?"

Brazil pondered. "There was no need for his slaying, either, that I could see."

"You carry no spear or sword or bow, nor did your dark companion. How could you fight six spearmen?"

After a moment Brazil raised a hand to touch his helmet. "My armor is not easily seen, yet it is very strong. So is it with my weapons."

"Strong Red warriors could not

hurt you with their spears," Ariton said thoughtfully. "And when they tried to seize you they were struck down by cramps and sickness, like swimmers who have entered cold water with full bellies. So the Sea God might . . ."

"But it was not the Sea God. Shall we sit down here?"

He gallantly let her have the low boulder that presented itself, and crunched his armored seat down into groundvine. The suit was a load to stand around in, even at .95 gravity.

"Where is your dark companion now? And your ship?"

"He is not far. And our ship is near the island."

Ariton apparently thought it natural that a man alone among strangers should be a bit secretive about the location of his friends.

Some water from the altar flood had run into the nearest fire, and the light grew dimmer yet. There was no word in Brazil's ear from above.

"It might be thought that you and your friend are only castaways upon this island, as none have seen your ship."

HE took the suggestion calmly. "It is not so. Our ship is near, with others of my people aboard."

"Why have you come to this island?"

"My countrymen and I travel to learn things, about new lands none of us has seen before. Some of us would like to live on this island for a little while, perhaps a few years, on some land your people do not use. We do not want to boss your people, or to take anything we do not pay for."

"I have no land to give anyone, while there are Reds on the island." Ariton's voice was sharp.

"Some of my people will talk to the Reds, too, about using land. But we will not trade with a tribe that holds another tribe in slavery."

She was puzzled. "But who does not own slaves, if he can? If we could enslave the Reds, we would. Do you own no slaves at home?"

"It has been very many years since my tribe held slaves. A tribe becomes stronger when it does not depend on them. My people have traveled far and looked at many tribes, and it is always so."

"But if all were free to choose, who would do the mean and dirty work of slaves by choice?" Ariton looked at him searchingly.

Brazil gave a faint sigh. "True, someone must do such work — sometimes someone must be forced to do it. But even such lowly persons should be treated as members of the tribe, and not

killed or beaten as animals would be."

"And if there are two tribes, as on this island?"

"Two tribes can live as one, if their leaders are wise and strong."

"That is a strange thought to me. But then I have never traveled in the far parts of the world." Ariton meditated for a few moments, before she spoke again.

"Will you, Boro, go to speak with the Red king about this matter of land? You still look like a Blond, so maybe the Reds will try again to slay you or imprison you."

Brazil thought it over. "I may go. It is only chance that I look like a Blond. My shipmates are of varied appearance; some of them resemble Reds." He thought to himself: What planeteer looks most like a Red? Foley, but his hair isn't nearly the right shade. A little dye will fix that, if need be.

"I will go with you, when you go to speak to Galamand," Ariton announced.

Brazil was surprised. "Do you enter safely into the Red king's castle at will?"

"The Reds are not likely to do me harm, and I think Galamand will see me if I visit him." Ariton smiled. "I am a high priestess of the Sea God."

ANOTHER conference began as soon as Brazil was hoisted home to his scoutship.

"Religion may give us a way to promote unity here," said Sociology. "We see that Reds and Blonds both worship the same powerful Sea God. However, his sacred Tower seems to be a point of contention between the tribes."

"We think we have that Tower located, by the way," put in Captain Dietrich. "And what's probably the Red king's castle, or at least his summer home. It seems too far from fresh water to withstand a siege. Where's that chart? Here, on this peninsula that protects the harbor at Capital City, a large stone structure. Right next to it, on the side toward the ocean, is the tallest building on the island, a tower about ninety feet high. Then there's a sea wall running the length of the peninsula, for protection against waves and maybe invaders."

"Foley, you and Brazil will be visiting Galamand as soon as we can locate him. Get your hair dyed to match the Reds. Maybe we can at least impress the natives with the idea that it's possible for Red and Blond to co-operate."

"I trust everything possible will be done to avoid another fight." Chandragupta wore a frown.

"We'll have to talk to the Reds

sooner or later, if we're going to get anywhere," the Captain said. "Though it's possible we may have to fight our way out again. Is anyone against sending a delegation to Galamand as soon as possible?"

"Should we take Ariton along, as she suggested?" Gates asked the conference.

"It might make us seem to be committed as her allies against the Reds."

"No doubt that's what she wants."

"But it would bring the two leaders face to face. If there's any possibility of ending the conflict between them, such a meeting might give us a clue to it."

Planeteer Foley, hair reddened, was flown down and transferred to scoutship *Alpha*, which lay out at sea again. Gates intended to hold himself in reserve, in the scout, to rescue the delegation if necessary.

First it was necessary to locate the king, and to arrange to take Ariton to the planned meeting with him. Hoping to do both, Brazil almost literally dropped in, shortly after sunset one evening, on the hill village where she had told him she could usually be found.

No Reds were in evidence. Again a flock of watchbirds assaulted Brazil with futile energy. The Blond natives stared at him

with some awe, but little surprise. They directed him to a building set against a hill.

IT WAS a low structure of groundvine mats and rare wooden poles. Carved or molded masks hung in profusion at the gateway, the first artwork of any kind Brazil had seen on the island, except for the decorated armor of the Reds.

He stood at the gateway in the low fence and called a greeting to the dark and open doorway of the house. In a few moments a Blond man, unusually tall and carrying an oil lamp, emerged from the rambling building. He stood studying Brazil emotionlessly.

"I am looking for Ariton," Brazil repeated. The towering Blond somehow made him feel for a ridiculous moment like an adolescent suitor come to call on his girl and greeted by her older brother.

"Ariton has gone to Capital City," the man said finally. "To meet you or your countrymen there when you go to visit the king of the Redmen." Again the grinding foot-motion at mention of Galamand. This man conveyed a suggestion of insolent freedom and power to Brazil. It was impossible for him to think of this man or Ariton as slaves.

"Is Galamand now in his

castle beside the Tower of the Sea God?" Brazil asked.

"Yes." The Blond man paused, then seemed to reach a sudden decision involving Brazil. "Come with me." He beckoned with his lamp and led the way into the house.

They followed a passage leading back toward the hillside. The open rooms they passed contained things of shapes unknown to Brazil, things carved and feathered and stained. More temple than home, certainly.

"Here." The Blond turned aside suddenly, and stooped to roll up a floor mat. Buried among mats of groundvine that filled a hole evidently of considerable depth, were row upon row of spears, simply made but strong and sharp.

"When your king comes to this island," said the Blond, showing powerful white teeth above his beard, "he will find ready help to topple the Reds from power. Not all my people are willing to live the lives of animals. Long have we planned and waited. The Reds are fewer than we. Each year they stay more within their forts and in their walled city, and each year hurt us more, with killings and beatings. We will be willing to help you."

Brazil took a deep breath. "If you want to help me, you will not rise armed against the Reds.

You will agree to live with them as one tribe, when they also agree."

The man stared at Brazil for a long moment, then gave a short and nasty laugh. "When they say that will be the day when they are helpless."

"But remember what I say, if you wish your own people well," said Brazil, turning to leave. "Let there be no armed rising against the Reds."

"Not yet," said the Blond in a cold voice. "Not yet for a little while."

BRAZIL and Foley stood among tall bushes and grass on a hillside with a fair view of the town whose name translated into Capital City, early after sunrise on the next morning. They wore heavy ground armor, in camouflage colors. They studied the city before them, adjusting their heavy glass faceplates for telescopic vision.

Capital City was plainly divided into two sections. The Reds dwelled on a hill at the far side of the harbor from the watching planeteeers, in an area surrounded by a defensive wall. Their buildings were mainly of stone or mud brick, and a number of Blond servants could be seen going about various menial tasks.

In the Blond section, on lower ground and closer to Brazil and

Foley, no Reds were visible except for an occasional squad of patrolling soldiers. They stuck close together, looking grimly over their shoulders. The houses were built mostly of dried groundvine mats, though some mud bricks were used.

Beyond the Blond section were the docks. The water of the harbor was studded with the low shapes of fishing boats and, larger, a few of Galamand's war galleys.

"Well — shall we march?" asked Foley.

"Might as well. I expect Ariton will know we're here before we've gone very far."

Brazil moved his legs. The suit servos drew power from the tiny hydrogen fusion lamp in the backpack; the suit legs churned the massive shape ahead. The wearer had the sensation of moving in light summer clothing, but he could plow through heavy bush and small trees if he chose.

Brazil and Foley had no wish to leave such a monstrous trail, so they picked their way with care to the nearest road and set out at a slow walk toward town.

Ariton met them in a narrow street before they were well inside the town. She stared at Foley hard when Brazil introduced him, but gave him a common greeting-word in a pleasant voice.

"Sunto is waiting with a boat

in the harbor," she told them. "It is the shortest and easiest way to Galamand's building."

The planeteeers followed her through narrow winding streets toward the harbor, ever a center of apathetic, curious, hopeful, or poker-faced stares from the Blond slum-dwellers. None of the Red patrols came within sight. That suited Brazil fine.

Sunto was waiting at a low dock, in a crude and lopsided rowboat fashioned of reeds plastered together with clay.

"Hope the blasted thing can hold us," said Foley on radio, trying to check his suit floats unobtrusively. "It'd be a long swim from the middle of the harbor."

The sun was still bright in the morning sky, promising a warm day. Galamand's castle rose forbidding across the harbor, beyond the fishing boats and the moored biremes of his navy. Above and beyond the castle rose the slender stone Tower of the Sea God.

THE rowboat held up as Sunto propelled it across the calm water of the harbor, straight toward the landing steps at the base of the castle. Reds appeared on the steps, watching. Their number grew as the boat approached.

"Galamand will have heard of you, of course," said Ariton. "I think he will be eager to see you

for himself. Of course he may decide to kill you." She observed them.

"I don't think he will harm us," said Foley. From inside heavy ground armor they could remonstrate gently but confidently with Galamand while he boiled them in oil or his cohorts attempted to bash in their faceplates with axes. It would require a local Archimedes and considerable work for any primitive king to damage them seriously, inside of a days time. But Ariton wore not much of any clothes at all. Foley asked her: "Do you think you will be safe?"

"The priestess of the Sea God is safe even from Galamand," she answered absently. Brazil thought she was worried, but not about herself.

A slight leak developed in the rowboat. Foley bailed rapidly with a leaky gourd, muttering exotic curses.

Brazil scanned the ranks of grimly watching Reds as they neared the landing steps. "Is Galamand among those?"

"I do not see him. No doubt he awaits you in the great hall inside."

The boat wallowed up to the landing. Ariton hopped nimbly out and made it fast with a rope of vine. A couple of Red soldiers made half-hearted motions of leveling spears in her direction,

but no one moved to stop her. Brazil and Foley disembarked and stood quietly, giving the Reds the chance to look them over and make the first move if they felt like it. There were no women or children in sight.

Ariton moved her hand in an intricate gesture, in the air above Sunto's head; then touched his head briefly.

"Now they will not bother him—for a while," she said to Brazil. "Well, let us go on and try to see the king."

A sword-bearing Red who might be an army officer stepped forward. "King Galamand has been told that you are here. Stand and wait." He eyed Foley with unconcealed and unfriendly curiosity.

Some of the Red troops looked Brazil over and commented among themselves with openly truculent contempt. His blondness was plainly visible through the faceplate. He looked back at them, deadpan, unobtrusively inflating his suit's flotation bubbles. Giant red swellings ballooned out around his shoulders and torso. The soldiers stared and fell silent.

"Brazil, what are you doing?" hissed a peremptory voice in his helmet.

"All right, I guess it wasn't funny." He deflated the bubbles and tried to wait patiently.

A FEW minutes passed in silence. Then a more elaborately costumed Red appeared, and imperiously beckoned the delegation to follow him into the castle.

There were only a few Blonds inside the walls. They had the look of prisoners or the lowest of slaves. Now a few Red women and children were in evidence, but they retreated rapidly out of sight of the visitors. The complex of walls and buildings making up the stronghold had been built of heavy stone, with little if any mortar used. But the stones were cut and fitted superbly, especially in the lower levels of the walls.

The great hall was a high chamber about thirty yards by ten, dimly lit by smoking torches and small high windows. It was crowded with Red men of varied appearance. But across one end of the room stood a solid wall of tall soldiers bearing shields and leveled spears.

"The old boy's probably right behind his army," Brazil radioed.

"Stand and wait here," said the distinguished Red who was acting guide, indicating a spot not far from the leveled spears. He disappeared into the crowd at one side.

Brazil and Foley turned casually around as they waited, studying the chamber and the Reds in it. No attempt had been made

to surround the visitors at close quarters. The door by which they had entered still stood open. Ariton stood waiting between the planeteers, with utter calm.

Another important-looking Red appeared before them; but it was somehow obvious that he was not the king. He held his hands clasped before him and owned a nose remarkable in size even for one of his tribe.

"Do you bear weapons?" he demanded sharply, looking from Foley to Brazil.

"We do," said Foley. "And we are not the only men here who bear them." He tried to give his speech the accent of a Red.

"You must give me your weapons," said the chamberlain. "Then you may advance and prostrate yourselves before the king."

"We will advance to greet the king in all friendliness," said Foley. "But the law of our own nation forbids us to do homage to him or to give up our weapons."

The chamberlain hesitated a moment, then began to screech at the Earthmen threateningly, as if they were slaves. He raved and glared and waved his arms, and jabbered so fast he became almost unintelligible. Yet Brazil got the impression the man was trying to avoid direct personal insult. It was a masterful performance of denouncing their disrespectful behavior but not themselves.

"Better just wait him out," Brazil subvocalized to Foley via radio. "Maybe they just want to see if we bluff. It wouldn't do for the king himself to fail."

THE planeteeers stood silent a full thirty seconds longer, glaring stony-eyed back at the speaker. The harangue gave no sign of slackening.

"Better squelch him," Brazil said. Evidently the torrent of words was going to continue until they reacted to it in some way. Brazil did not now want to give the impression that Earthmen had infinite patience. The squelch might be better accepted coming from the "Red" planeteer.

"Silence!" Foley bellowed, after turning up his airspeaker volume. He got what he called for with magical suddenness. Ariton wore a pleased smile.

"We have come here to talk with a king, not to listen to you," Foley went on. "If King Galamand is not pleased to receive us today, we will return tomorrow. Our business is important."

"Get out of the way," said a firm voice from behind the wall of soldiers. "Let them come here."

The rank of soldiers opened, but stayed within spear-thrusting distance on either side. Brazil, Ariton and Foley advanced toward the man who sat alone upon an ancient carven chair.

The low dais and throne were nothing remarkable. The helmet and breastplate of the king were richer than those of his soldiers. Upon the breastplate was worked in relief an image of the Tower of the Sea God, the torchlight glinting on it.

The man upon the throne was not ordinary. A vast scar sliced across his face, nearly obliterating one of his eyes. He was approaching middle age, not big for a Red, but thick-limbed and strong.

Foley opened his mouth to say something a little nasty about the way the chamberlain had spoken to them. "Greetings, oh king," was what came out. Galamand's bright blue eye seemed to nail you with more effect than if there had been two.

"Greetings, oh, king," said Brazil. Ariton stood between the Earthmen, saying nothing and watching Galamand haughtily.

The king ignored her and spoke to the armored planeteeers, looking from one to the other. "I bid you welcome," he said perfunctorily. "Does your king send greetings to me?"

"He does, indeed," said Foley. "And would send you gifts, as is our custom." He waited momentarily for a reaction which did not come, then added: "But in some lands it is considered an insult to present such gifts im-

mediately. It is, indeed, so considered by us."

The king raised an eyebrow, and his mouth twisted slightly. Some facial expressions seem to be well-nigh universal among humanoids, Brazil thought. He spoke up: "Oh, there are such lands, King Galamand. Not many, but a few."

The blue eye fixed on his. "I thank your king for his greetings. Is he Red or Blond?"

"Neither," said Brazil, truthfully enough. "In our country there are men of many tribes, who live together fairly peacefully. It is only by chance that I look like one of the Blonds of this island. But Foley here was chosen deliberately to come here today, because he looks like a Red, that you might not think we believe Reds to be our enemies."

The king nodded toward Ariton. "You bring this woman with you. Why?"

"I have come with these my friends, to speak for my people," she said, flaring up at him. "And I speak also to the Sea God, as you well know."

GALAMAND seemed faintly amused. "Do you speak against me to the Sea God, woman? Your words are not strong enough. The Tower still stands against the waves. The sea-sound is faint in

my ear, and soothing as I go to sleep at night. Will you arouse the Sea God to destroy me?"

Brazil heard the faintest stir and mutter among the soldiers on either side; evidently the king's words might be thought a provocation to the God. Galamand swept his blue eye around, but said nothing to his men.

He spoke again to the planeteeers: "And you are this woman's friends?"

"We would be friends with Red and Blond alike."

Galamand digested the statement swiftly and without comment, and changed the subject. "Your ship is swift and hard to see; my ships have circled the island every day since you first appeared, and have not found it. Yet at night it draws near, for you to land. And when you leave, your ship is not seen either. Now I admit this puzzles me."

"He may be convinced that you're just castaways," said a rapid whisper from the *Yuan Chwang* in Brazil's ear, bringing him no news.

He answered the king: "As you say, our ship is swift, and hard to see. It is not the wish of our king that our first visits here be seen by many ships upon the sea."

"And why do you come here at all?"

"We seek always the knowledge

of new lands, oh king," said Foley. "Some twenty or thirty of us would like to live on this island for a year or two, on some small area of land that you who live here now do not need. We are willing to pay for this privilege. But we are not willing to deal with a government engaged in civil war, under which two tribes contend against each other; or with a king who holds another tribe in slavery."

"No one contends against me here and lives." Galamand spoke quietly and distinctly. He gave Ariton his twisted grin and asked: "Is it not so?"

It stung her deeply, and her voice rose loud: "Your day is not forever, Redman. One day your children will be our slaves, if you beget any before you die. We will—"

Brazil's voice rose over hers. "That is not what we want! That would yet be war and slavery."

Both native rulers looked at him, for a moment united against the outsider. Then Galamand asked quietly: "How would you have us live?"

"As one tribe."

Galamand narrowed his operational eye and scratched his beard. "You spoke of payment, for the use of land. What do you mean to offer?"

Foley answered: "To a just and peaceful ruler we would offer, to

begin with, a great quantity of cord, stronger and more lasting than your vines, to make excellent fishnets, oh king."

"And weapons?" The king's voice was casual and gentle.

"A quantity of swords and spears might be included—"

"You do not carry swords or spears."

"We carry them for trade." They could be made up.

Galamand's blue eye did not waver from Foley's face, but his right arm shot out toward the nearest guard, and his fingers snapped. The haft of the guard's spear was instantly in his grip.

THE king stood up and thrust the spear, butt first, toward Foley, at the same time holding out this left hand open.

"If you are men who deal in spears, then I will deal with you. I offer in trade this good Red spear, for that weapon you wear at your side."

Foley assumed an expression of deep trouble, and he answered reluctantly: "Oh king, we have no wish to anger you. But we must refuse to trade our weapons. If we did, the anger of our king would fall heavily upon our heads. And against his anger we have no defense."

"And against mine?" Galamand's voice was still gentle. So is a gorilla, when not offended.

"We have our weapons, which we will not trade," said Brazil, with utmost courtesy. The blue eye lanced at him, and he looked right back down the shaft of it, while from the corners of his eyes he watched the spearmen carefully. He wondered if Galamand could really identify the butt of a stun pistol as a weapon.

Galamand grounded the butt of the spear and stood drumming his fingers on the shaft.

"Fishnets," he said meditatively. He looked from one planeteer to the other. "Your great king has then no weapons to spare? I would reward you well if you were to convince him that he has; or if you were to act, shall we say, on your own . . ." He reached into a pouch at his side and brought out a lustrous pearl, bigger than a grape.

Foley shook his head slowly, forgetting that the gesture might mean nothing or anything here. "Oh king, it cannot be so. If you offer us kingdoms greater and richer than this whole island, still we will give or trade to you no weapons, save such as you can make yourselves."

Galamand tossed the spear back to the soldier and seated himself again.

"And your armor, I suppose? I admit I have not seen such glass."

This time Brazil joined in the

headshaking, to preserve unity, since no one had seemed shocked by the gesture.

"Strange men," Galamand mused. "You say you will not trade with a ruler who holds another tribe in slavery. I will not ask you why. I have not asked for any trade with you that would pay me in fishnets, and I want none. While the waves spare the Tower, the Sea God supports me. I am king upon this island. My slaves are my slaves. When you are willing to trade something worth while for the use of my land, you may come again and speak with me."

"Suggestions?" Brazil radioed.

"Leave without argument," said a voice from above. "We can analyze what we've got and try again."

ARITON stood proudly erect while Brazil and Foley bowed deeply to the king, who told them with a straight face that he was providing them with an escort back to their ship, that no harm should come to them on the way.

"They'll see the scout unless we can shake them," Brazil radioed, starting out of the throne room.

"Guess maybe we'll have to give them a minimum marvel to look at," said Gates' voice. "There's a suitable deep cove

just outside the city, about two miles from where you are. Just walk south along the shore; I'll bring the scout up partly out of the water for you to get in, and let them get a good enough look to be sure it's a ship and not a sea monster. Okay?"

"Good idea," said Captain Dietrich. "A submarine will explain to them why they haven't seen our ship. It'll startle them some, but it should further convince them we're not spirits who just materialize."

Ariton walked with the plane-tees out of the castle; they stopped at the landing steps to pick up Sunto, who was much relieved to see them.

Sunto ceased bailing and climbed out of his rowboat when told they were leaving by land. He said to a Red soldier standing guard nearby: "I leave to you as a gift the noble craft which you have praised so highly." And he ground his foot against the stone stair. The Red glowered but said nothing.

The walk out of the city was uneventful. Within an hour the four of them stood on the steep sloping shore within the chosen cove, with Galamand's heavily armed honor guard watching very carefully from a little distance and a Red galley casually standing by off shore.

Foley was telling Ariton that

a ship would soon come to take Brazil and him aboard, but she and Sunto would have to stay on shore. She agreed calmly, and watched the horizon for the ship, with some puzzlement.

Brazil turned to Sunto. "The Tower of the Sea God is very important to your people and the Reds, is it not?"

"Yes." Sunto did not seem especially interested in the subject. "It is our old belief that as long as the Tower is not destroyed by the waves of the sea, the Sea God smiles upon the rulers of the island, whoever they be."

"What if the waves should knock the Tower down?" Brazil asked.

Sunto smiled wryly. "Then I think you would see upon this island the one tribe for which Ariton says you asked the king. For the Tower to be so destroyed would mean the Sea God thinks the rulers of the island evil. The destruction of his own Tower is to be his last warning before he overwhelms with waves the entire island, slaying everyone on it and carrying the evildoers down to be frozen forever in the ice at the bottom of the sea."

"Get more on this, Boris," said an excited radio voice. "Ask Ariton about the Tower, Foley. She should be the real authority. Gates, hold that scout underwater for a minute."

BRAZIL asked Sunto: "Do you think the Sea God will ever destroy the Tower?"

Sunto looked out at the ocean soberly; it was dull and placid in the sun.

"May I never see the day — but I am a practical man. Whoever is king will surely see to it that the sea wall of large rocks is kept strong at the base of the Tower, to break the force of the waves. Some day, perhaps, a very great storm . . . but there are great storms every year. The Tower has stood for many years."

"Is the season for great storms coming soon?" Brazil felt the vague beginnings of what might be a valid idea.

"No, it is just past. Now is the time of the steady-but-not-too-strong winds."

"Oh. I see."

"That checks," said Meteorology from above.

Sunto continued: "Also, the Tower stands on a straight shoreline, and the Sea God hurls his waves most strongly against the points of land that jut out into his domain, as if he were jealous."

"That is true in all lands," said Brazil absently. He had just the start of a plan to get these people co-operating, by somehow making the Tower seem threatened by a storm, and scaring them. It might be just possible to in-

duce a violent storm. But what would it do to the rest of the island? The scheme seemed worthless...

"That is true in all lands. As it is true that the waves come in nearly always parallel to the shore, no matter from which point at sea the wind is blowing. And the reason is the same . . ." Brazil fell silent, as if in a sudden dream.

"Why, that is so, but I have never thought about it," said Sunto in surprise. "Truly, the waves are like women, for men watch them long and understand them but little."

" . . . that they travel more slowly as the water beneath them grows more shallow," said Brazil with a far-away look. He gave a sudden laugh at the sight of Sunto's startled face. "Waves, I mean, not women. Sunto, tell me this. If the Tower were destroyed by some means other than the waves, what then?"

"What then?" Sunto gave the Blond equivalent of a shrug. "Why, the Tower would simply have to be rebuilt, and the king would gain merit in the Sea God's eyes by rebuilding." He thought for a moment. "Maybe the Red king would rebuild it on some inland hill, where no wave could ever reach it, and so make his rule safe."

Brazil nodded as if satisfied.

TWENTY minutes later he sat with Foley in scoutship *Alpha*, gratefully peeling off gadgets and chunks of armor. He faced on a segmented screen the debriefing assembly of their peers and bosses, electronically gathered to analyze the visit to Galamand. The astounded natives who had watched the two planetees enter the submarine craft were by now no doubt attending their own conferences on the subject.

"First, just tell me this," Brazil invited, eyes alight with an idea. "Does it seem likely that a massive assault of ocean waves on this Tower might make these people willing to try getting along together, at least for a while, so we could deal with a halfway representative government?"

"I would say yes, based on what Ariton told me," said Foley.

"I would tend to agree," said Sociology, cautiously. "It might well give us a start in the right direction."

"An assault of ocean waves, you say." Captain Dietrich frowned. "Not of forcefields, explosives, chemicals or sonic vibrations."

"Captain, I think there's a chance it can be done with this scoutship, and not by directing any of those modern weapons against the Tower."

"I am afraid I would have to forbid the use of such weapons

against the natives, on principle," said Chandragupta grimly.

"The idea is not to wreck the Tower," said Brazil, "but to make the natives think the Sea God has decided to wreck it."

"That Galamand's no fool," said Gates. "He's probably thinking up antisubmarine devices already. And how are you going to stir up suitable waves with a scoutship?"

"I'm not going to stir them up, exactly. And I don't think Galamand will notice a submarine acting several miles out at sea, away from his Tower."

"Are you drunk?"

"No, on duty. Another reason for trying to get this situation settled. Now I'll need some information before I can tell if this scheme has a chance of working."

Late that afternoon a cute chick who happened to be an expert oceanographer gave Brazil data he had requested. He studied it for a few moments, then favored the girl's screen image with a look like that of an elated predator.

"Baby, I think I could kiss you."

"Your threats don't frighten me at this distance," she answered, unperturbed. "Is there anything else you want — having to do with the job, that is?"

He turned serious. "Now I

need a weather forecast of such massive solidity that we can all lean on it — one that includes a steady ocean breeze here."

TROFAND, Red priest of the Sea God, and chief caretaker of the Tower, was awakened by the sound of the waves, to which he listened with half an ear even while asleep. The sound was now too loud for his liking.

He arose from his pallet and was dressing in the stone-damp darkness of his chamber in the Tower's base when he received a shock. A streaming puddle of cold sea water flowed against his bare foot on the floor. He hastened to light a candle from the smoldering brazier that fought uselessly against the permanent dampness of his bedchamber.

It was true, he saw with distress. Water was entering in thin streams through chinks in the massive masonry of the inner Tower wall. It was something that happened only in the heaviest storms. The booming roar of the waves pounding the heavy sea wall outside brought him to the beginning of real fright. In ten years in the Tower he had never heard it so loud. A mighty storm must be raging, though the season for them was past, and the weather signs had given no indication of any approaching tempest.

Trofand was nearly dressed when an underling came with a torch, pounding on his door and opening it with a minimum of courtesy.

"My lord, the waves, the waves! They are very bad!"

"I have ears, fool. Someone should have called me sooner. What are the signs of the storm's length?"

"My lord, there is no storm."

Trofand started an angry retort to the foolish statement, but something in the pale frightened face before him made him pause. Fastening his belt, he led the way out of the chamber to the stair that climbed to the Tower's top. He could soon see for himself what was happening.

It was true, he realized, emerging into the pre-dawn darkness atop the Tower. The sky was clear. The wind was steady in direction from the sea, but it was not strong. The surf at the Tower's foot should be fairly gentle.

He thought he felt the stones of the Tower quiver underfoot with each leisurely watery smash.

An assistant was at his elbow, speaking with a worried voice. "My lord, what shall we do? The signs are that the wind will rise throughout the day, and remain steady in direction. If the waves become yet higher—"

"If they do, we will deal with

them. The Sea God is not our enemy. Go rouse out the Tower slaves. Conscript more if need be. Have them stand by the fresh slabs of rock, ready at dawn to strengthen the sea wall. Then go you to offer the day's sacrifice to the Sea God. But do not take too long about it."

"I obey." The man was gone in an instant, down the stair. Other junior priests of the Tower huddled about Trofand in the chill night, in the light of a dim torch, looking to him for guidance.

WELL, I was right about that, Trofand said to himself. He was thinking of the extra stones, weighing many tons apiece, that he had long ago ordered to be kept on rollers in the courtyard below. They were constantly ready to be moved to reinforce the sea wall in case a storm of unprecedented violence should threaten the Tower.

But now he had a question to decide immediately. Should he order the king awakened? After all, the Tower seemed in no immediate danger. Galamand might grumble if he were waked up for something unimportant. But he might have the man boiled alive who failed to wake him for a real emergency, priest of the Sea God or not. It was not a hard decision to make.

"You—go rouse the king. Tell

him I say that waves threaten the Tower. Tell no one else."

"I obey."

King Galamand was beside Trofand within a few minutes, looking over the parapet and frowning at the strange intensity of waves that were driven by such a modest wind. He observed the preparations that had been made to reinforce the sea wall at dawn, then turned and struck his fist against the parapet.

"You did well to call me. But these stones have stood throughout my lifetime, and I say that they will stand yet a good while longer." Trofand saw him outlined against the first gray light in the east.

The Blond slaves, whipped on by overseers, now began to roll the mighty rock slabs into position to reinforce the sea wall. It would be dangerous work. But slaves could be replaced, while the Tower—

There was an outcry somewhere inside the Tower. In a minute an exhausted runner appeared, helped up the stairs by others. He leaned against the stones beside the king in near panic.

"My lord, the sea wall—the wall away from the Tower, up and down the peninsula—"

"Is it breached by waves? Where?"

"No, my lord." A gasp for

breath. "I came along the wall, after carrying your message conscripting slaves—"

"Well?"

"Elsewhere, my lord, the waves are small. Only here at the Tower do they rise abnormally, as if in raging anger. As if the Sea God has grown angry and—uh!"

Galamand's vicious backhand blow knocked the man sprawling. "Enough! Do not preach the anger of the gods at me, or I will show you what anger is! I am the king!"

The king turned away to peer, with Trofand and the others, at the waves beating against the sea wall at a distance from the Tower. The fast brightening dawn revealed that the messenger had spoken the truth.

THE NEWS was out, Brazil saw, as he strode along the sea wall road toward the Tower and the fortified complex of Galamand's castle. A puzzled Ariton walked between him and Foley. Reds and Blonds stood in little groups along the wall, commenting on the waves that were assaulting the base of the Tower. Faces turned toward them as they passed, but ever turned back again to the greater wonder of the waves.

Each long swell marched in from the clear horizon of the ocean, foaming up and curling over as the depth of the water

below approaching the height of the wave, to smash itself finally against the rocks piled in the shallow water at the base of the sea wall. But in the sea before the Tower, each incoming rise of water seemed to squeeze itself together along its long axis, rising to at last three times the height of the waves elsewhere, before it piled up in a foaming fury of discriminating violence upon that part of the sea wall.

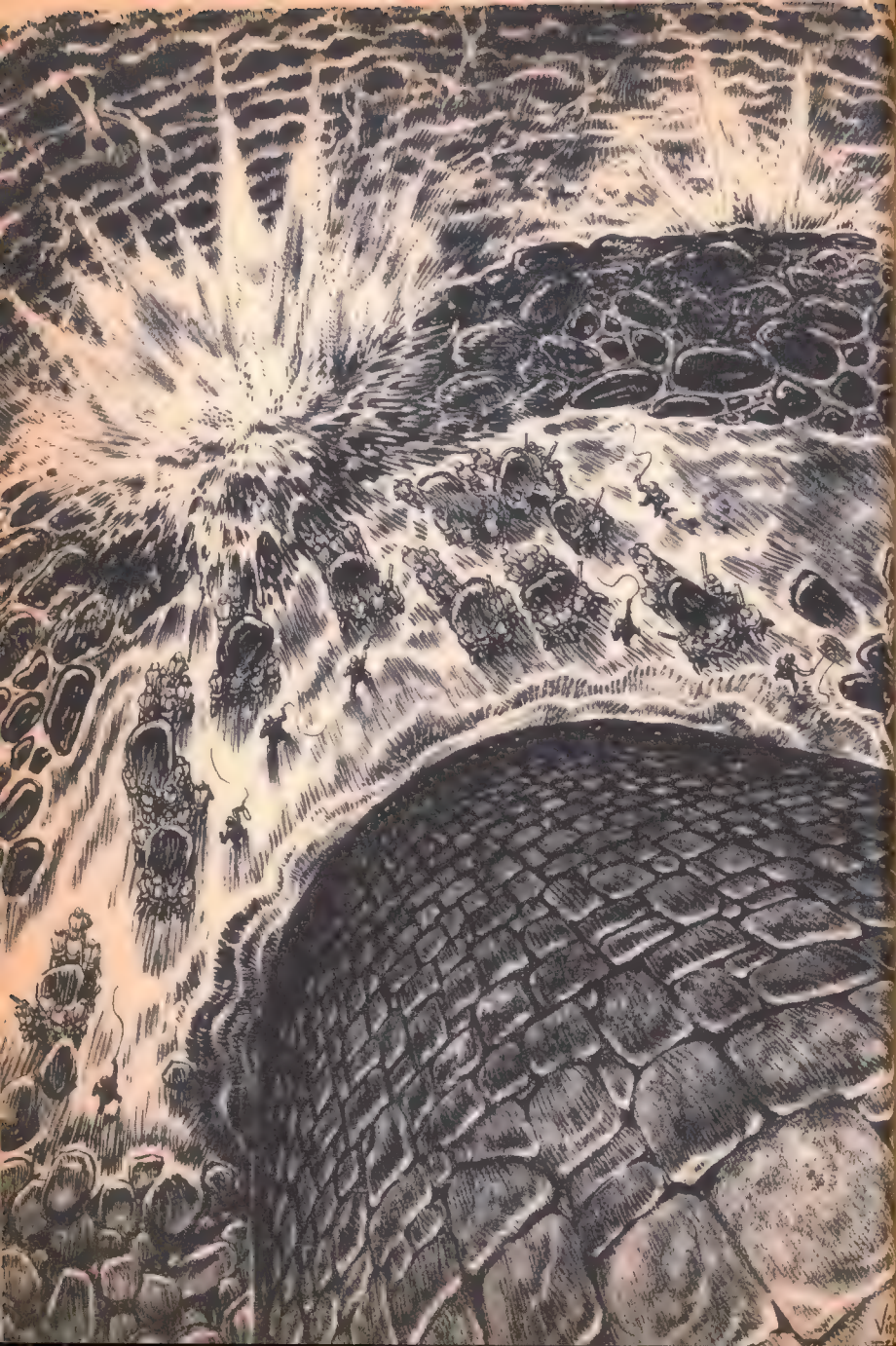
Ariton paused at her first sight of this, whispering something that might have been a prayer.

"You knew of this?" she asked Brazil. "This is why you brought me here?"

"I'm taking you to talk to Galamand," Brazil evaded. "I think if you and he can't come to some peaceful agreement soon, there won't be any Tower left for either of you to use. You have lived near the sea all your life. You know the strength that is in large waves."

"What do you mean?" she stared at him, half afraid. "Do you speak for the Sea God?"

"We are only men," he answered innocently. "But do I not understand your gods correctly? Is it not so that the Sea God may destroy his own Tower when there is great strife in the land and evil rulers, as a final warning to all the people, before he destroys the entire island?"



"It is true the Reds are evil rulers," she said after a long moment, as if thinking aloud. Then she took her eyes from Brazil's face and turned toward the Tower. "Come, whoever you are. It is my place to be there now."

"Is this going to work?" Foley radioed while they walked. "I mean that Tower isn't built out of pebbles, exactly. And it's stood through a lot of storms."

"On Earth," answered Brazil in professorial accents, "wave forces have been measured at well over three tons per square foot. Engineers will not build a shoreline structure on Earth without carefully considering the effect we are now employing."

"Besides, the idea is to scare Galamand and the little lady here into co-operating, not to actually wreck the Tower. That would probably kill someone, and I hate to think what might happen in the panic."

AT the castle gate, the guards seemed almost to be looking over their shoulders at the Tower as they halted the three visitors and sent word to Galamand of their arrival. Everyone in sight, Red or Blond, was obviously thinking or talking of nothing but the waves.

Within a few minutes, a guide appeared to escort the visitors

to the bare top of the Tower.

Brazil could see by the flags above the castle that the wind had increased slightly and was holding a steady direction, as Meteorology had promised it would. If we were only gods enough to control the winds in an area of a few square miles, thought Brazil. We can come a hundred light years to stick our noses into our neighbors' business, but if the weather doesn't quite suit our schemes when we arrive, we can only wait until it does.

Galamand scoured them with his single eye when they had climbed the stairs to the Tower's top. The king paused in his pacing amid a group of high-ranking Reds.

"Come you to preach the Sea God to me also?" he inquired in an ominously quiet voice.

Ariton looked about her. "Where is Trofand?"

"He has gone to offer sacrifices in the chapel below," said the king, with a tinge of amusement in his voice. He leaned against the parapet with thick arms folded and his back to the sea as if in contempt. "He has rather suddenly remembered to take his religious obligations seriously."

"A human sacrifice?" asked Brazil. He hadn't counted on this.

"He considers it," said Gala-

mand. "But I think the Sea God has lives enough for one day." He moved his head to indicate that they should look over the parapet.

In the cold boiling hell of surf at the Tower's foot a hundred Blond slaves struggled on the slippery rocks, straining on levers and vine ropes to move an enormous block of stone into the surf at a place where the waves had weakened the wall.

With each torrential ebb and surge of water, Brazil saw, a pale object in the surf was drawn out and hurled in near the rocks, buried in foam and tossed up again—a fish-pale thing that had blond hair and no longer any face. And there was another—and another . . .

No Blond slave or Red overseer took any apparent notice of the drowned men, much less attempted to pull them from the sea. Every living man down there was concerned too intently with his own footing on the treacherous rock.

"Take it easy, old man," said a voice inside Brazil's helmet.

OH, THIS Brazil is a wonder, a red-hot planeteer, said a louder voice inside Brazil's mind. Just trust him, and he'll come up with a great scheme to set everyone on the road to happiness without bloodshed. That's

important, no bloodshed. Well, you can't see any blood down there, can you?

Now that's enough. Shut up and get to work, there's a job to finish.

"Why does the surf attack only the place of the Tower, oh king?" he asked, turning, stony-faced.

The blue eye studied him. "Had I a ship so cunningly built as to travel underwater, I might discover why." Galamand turned to his aides. "Send boats and divers out beyond the white water. See if anything strange lies under the surface."

"The old boy's uncomfortably shrewd," said Foley on radio. "Doesn't seem likely they'll search the bottom five miles out and a couple hundred feet deep, though."

Boats and divers soon appeared in the sea a few hundred yards out from the Tower, and made a show of investigating underwater conditions. It was not a really dangerous job for such skillful sailors and swimmers, out there where there were no rocks to be dashed against. But the Red seamen seemed to approach the job with a vast reluctance. Their faces turned often toward the Tower, as if in hope that the king would recall them.

Time passed. By noon the wind was obviously gaining strength again.

"I go to join Trofand in the chapel," said Ariton to the king, as if daring him to stop her. He pulled at his beard and appeared not to hear.

When she had gone he ordered food brought to him. His aides grew continually more gloomy. They looked often at the king, but sought to avoid his eye.

Galamand was amused to see the planeteers drink their lunch from tubes inside their helmets. He asked if their suits had sanitary facilities too, and roared with laughter when he was told they had. But the laughter had a forced sound to skillful ears.

The wind grew yet stronger, though it was still far from a gale. Down below, an incoming wave got under a forty-ton slab of rock just right, and skipped it like a flat chip against the base of the Tower itself. Slaves and overseers miraculously scrambled clear. Stones split and flew; one fragment spun almost to the Tower's top.

The next wave poured through the gap in the sea wall, like the paw of a giant beast forced into a hole to grope for prey. The next tore free another huge stone from the edge of the hole. The bones of the Tower quivered.

Slaves and masters at the Tower's foot scrambled desperately to move another massive rock into a defensive position.

Brazil saw it was a futile thing for creatures weak as men to attempt. One roaring curl of water caught a Red, who dropped his whip and grabbed at the slippery rock to save himself. Brazil saw the upturned face, the eyes seemingly looking straight into his own, the mouth opened as if to yell something. The next wave tore the man away and dragged him out of sight.

GALAMAND was roaring orders for more slaves to be brought. "You have strange powers and weapons," he demanded suddenly of Foley. "Can you help me now?"

Brazil pulled himself out of a hideous fascination with what was happening down below.

"And if we can?" asked Foley.

"It might be that the agreement you sought with me could be quickly reached." The wind tore at Galamand's words, and shot spray past his head, here ninety feet above the normal sea. A small wave-tossed rock clattered against the parapet, as if shot from a giant's sling.

"Then order those men from the sea down there," Brazil demanded. "And give your word to make of Red and Blond one tribe."

"Then you can cure this," barked the king. "And it may be you have caused it!"

The other Reds glared at the Earthmen; some weapons were drawn. Then cries came from the stairway, distracting attention.

Ariton and Trofand were suddenly at the top of the stair, in ceremonial robes half sodden with sea water.

"My king, the Sea God pours his wrath into the very chapel. I—" Trofand jumped back, as if he thought the king's sudden lunge was directed at him. But Galamand seized Ariton, had her arm twisted behind her back and his dagger at her throat in a moment.

"Sacrilege! Sacrilege!" howled Trofand. The other Reds looked on, wavering, wide-eyed, undecided.

The king swung Ariton to face the planetees. "Now, aliens," he roared. "Cause the waves to cease, and quickly, or I will butcher this so-called queen with whom you ally yourselves. You seek to put her on a throne, but I alone am king. And so I will remain!"

"My lord." Ariton's low voice stopped the king in surprise. Doubtless it was the first time she had used any title of respect to him. "My death will not save our island. But I will marry you and bear your sons, if that be the only way to save it. And we will live here as one tribe."

For the first time in his experience, Brazil saw Galamand

taken aback. But it was only for a moment.

"No, I'll not have it! I am the king here, I alone. Not you, or the aliens, or the Sea God himself, can order me, do this or that!"

Trofand moaned and covered his face; every other Red was visibly shaken by the king's defiance of the god. He's weakening, Brazil thought, with a sudden turn of sympathy for Galamand, and he's cutting himself off from his followers. Be ready for the moment . . .

The sea-flung stone, the size of a grapefruit, actually missed Galamand's helmeted head by less than a foot, and flew on to bounce off the opposite wall and down the stairway. The jolt from Brazil's quick-drawn stun pistol took the king in the head about one second later, when all eyes were on Galamand. No native doubted that the rock had grazed the king's helmet and caused his sudden collapse. Brazil's pistol was reholstered as quickly as it had been drawn.

The Red priests and soldiers stared at the fallen ruler in awe. Plainly he had been struck down for blasphemy. None of them moved to aid him.

FOLEY went to him, pulling out his first-aid kit and beginning a quick radio conference

with the medics of the *Yuan Chwang*. The stun-jolt should wear off in a matter of minutes; a carefully chosen tranquillizer administered now should ease the situation then considerably.

A Red officer of apparent high rank spoke almost imploringly to Trofand: "We will obey you, my lord. Is there any way to save the island?" The priest looked uncertainly at Ariton.

Brazil asked her: "Will you now marry the king, as you offered, and so unite your people with his?"

She rubbed the arm that Galamand had twisted, and frowned. "There is no need for that now. The Sea God has rejected him. With your help, I will be ruler—"

"Do you want the Tower to stand?" Brazil cut her off brutally. "Remember, too, that the Red soldiers are still strong, and perhaps not eager to serve you."

She nodded, meekly wide-eyed for once.

Brazil turned to Trofand. "Can the marriage be done at once? As soon as the king awakes?"

"If he can be made to agree to it; I see that the Sea God has spared his life, for now his eyelids move."

"I think he can be made to agree," said the high-ranking officer, grimly. "I think it is time we had a certain heir to the

throne, and also an end to this unprofitable fighting in our own land."

Brazil switched off his air speaker, with throat muscles beginning to quiver with the relaxation of tension. "Sam, start cutting down that hump. But better stand by to rebuild, until I give you the word that the honey-moon has started."

Five miles out at the sea and two hundred feet below the surface, scoutships *Alpha* and *Omicron* braced themselves on water-filled space, and thrust noses equipped with jury-rigged bulldozer blades against the mound of mud and sand rising from the bottom, the mound they had carefully constructed in the same manner the day before. It was not much of a mound for size, really, and unimpressive-looking to any but an oceanographer. But it shallowed the water above it, and so it slowed the waves, refracting those from one certain direction, focussing them as a lens treats light, causing them to converge on one small area five miles away . . .

BORIS BRAZIL opened his eyes. He had not been asleep, though he sat slouched in an easy chair in an alcove of the recreation lounge aboard the *Yuan Chwang*. Chandragupta was standing looking down at him.

"Do you mind if I ask what you see behind your eyelids, my friend?" the Tribune asked.

Brazil was not quick to answer.

"Perhaps you see drowned men." The Tribune sat down facing Brazil and spoke with quiet sympathy. "My friend, you have what must be one of the most difficult jobs in the known universe; you must be a researcher, a diplomat, a fighter, a linguist and a survival expert, by turns or all at once. And I know I have left out many things. I think you do very well in your job, considering that you are no more than human. We here agreed that your plan of threatening the Tower with waves should be tried. I still think it was good. It has set the islanders on the road to unity, and so no doubt averted more suffering than it caused. The next time a similar situation arises, no doubt it can be used with even greater success."

"Thanks, Chan. I can't help feeling we could have avoided

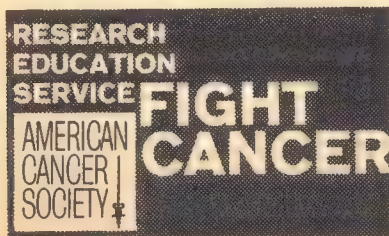
getting those men drowned—but there's no use brooding on it now." Brazil uncoiled slowly up from the chair to stretch. A little humor came back into his face.

"I'm going to play it as lazy as I can for a couple of days." He straightened his off-duty semi-uniform, and said, half to himself: "Maybe I'll just mosey over toward Oceanography and look up something. Hmmm—"

"Boris?" Foley's voice was heard before he came into sight. "There you are. Scout just sent back word from over nightside; they spotted one of those luminous water-rings over there, this one's eight miles across. Our regular standby crew is out, so Gates wants you in the briefing room on the double. Oh yeah—" Foley gave the uncertain smile of the bearer of a joke who doesn't understand it. "He says: 'What would Thoreau have to say about that?'"

Brazil's answer was probably inaccurate.

— FRED SABERHAGEN



KREATIVITY FOR KATS

*They are the aliens among us —
and their ways and wonders are
stranger than extraterrestrials!*

GUMMITCH peered thoughtfully at the molten silver image of the sun in his little bowl of water on the floor inside the kitchen window. He knew from experience that it would make dark ghost suns swim in front of his eyes for a few moments, and that was mildly interesting. Then he slowly thrust his head out over the water, careful not to ruffle its surface by

rough breathing, and stared down at the mirror cat—the Gummitch Double—staring up at him.

Gummitch had early discovered that water mirrors are very different from most glass mirrors. The scentless spirit world behind glass mirrors is an upright one sharing our gravity system, its floor a continuation of the floor in the so-called real world. But the world in a water mirror has reverse

★ By FRITZ LEIBER ★ ★ ★ Illustrated by DICK FRANCIS ★ ★ ★

gravity. One looks down into it, but the spirit-doubles in it look up at one. In a way water mirrors are holes or pits in the world, leading down to a spirit infinity or ghostly nadir.

Gummitch had pondered as to whether, if he plunged into such a pit, he would be sustained by the spirit gravity or fall forever. (It may well be that speculations of this sort account for the caution about swimming characteristic of most cats.)

There was at least one exception to the general rule. The looking glass on Kitty-Come-Here's dressing table also opened into a spirit world of reverse gravity, as Gummitch had discovered when he happened to look into it during one of the regular visits he made to the dressing table top, to enjoy the delightful flowery and musky odors emanating from the fragile bottles assembled there.

But exceptions to general rules, as Gummitch knew well, are only doorways to further knowledge and finer classifications. The wind could not get into the spirit world below Kitty-Come-Here's looking glass, while one of the definitive characteristics of water mirrors is that movement can very easily enter the spirit world below them, rhythmically disturbing it throughout, producing the most surreal effects, and even reducing it to chaos. Such disturbances exist

only in the spirit world and are in no way a mirroring of anything in the real world: Gummitch knew that his paw did not change when it flicked the surface of the water, although the image of his paw burst into a hundred flickering fragments. (Both cats and primitive men first deduced that the world in a water mirror is a spirit world because they saw that its inhabitants were easily blown apart by the wind and must therefore be highly tenuous, though capable of regeneration.)

Gummitch mildly enjoyed creating rhythmic disturbances in the spirit worlds below water mirrors. He wished there were some way to bring their excitement and weird beauty into the real world.

ON this sunny day when our story begins, the spirit world below the water mirror in his drinking bowl was particularly vivid and bright. Gummitch stared for a while longer at the Gummitch Double and then thrust down his tongue to quench his thirst. Curling swiftly upward, it conveyed a splash of water into his mouth and also flicked a single drop of water into the air before his nose. The sun struck the drop and it flashed like a diamond. In fact, it seemed to Gummitch that for a moment he had juggled the sun on his tongue. He shook his head amazedly and touched the

side of the bowl with his paw. The bowl was brimful and a few drops fell out; they also flashed like tiny suns as they fell. Gummitch had a fleeting vision, a momentary creative impulse, that was gone from his mind before he could seize it. He shook his head once more, backed away from the bowl, and then lay down with his head pillowed on his paws to contemplate the matter. The room darkened as the sun went under a cloud and the young golden dark-barred cat looked like a pool of sunlight left behind.

Kitty-Come-Here had watched the whole performance from the door to the dining room and that evening she commented on it to Old Horsemeat.

"He backed away from the water as if it were poison," she said. "They have been putting more chlorine in it lately, you know, and maybe he can taste the fluorides they put in for dental decay."

Old Horsemeat doubted that, but his wife went on, "I can't figure out where Gummitch does his drinking these days. There never seems to be any water gone from his bowl. And we haven't had any cut flowers. And none of the faucets drip."

"He probably does his drinking somewhere outside," Old Horsemeat guessed.

"But he doesn't go outside very

often these days," Kitty-Come-Here countered. "Scarface and the Mad Eunuch, you know. Besides, it hasn't rained for weeks. It's certainly a mystery to me where he gets his liquids. Boiling gets the chlorine out of water, doesn't it? I think I'll try him on some tomorrow."

"Maybe he's depressed," Old Horsemeat suggested. "That often leads to secret drinking."

This baroque witticism hit fairly close to the truth. Gummitch was depressed—had been depressed ever since he had lost his kittenish dreams of turning into a man, achieving spaceflight, learning and publishing all the secrets of the fourth dimension, and similar marvels. The black cloud of disillusionment at realizing he could only be a cat had lightened somewhat, but he was still feeling dull and unfulfilled.

Gummitch was at that difficult age for he-cats, between First Puberty, when the cat achieves essential maleness, and Second Puberty, when he gets broad-chested, jowly and thick-ruffed, becoming a fully armed sexual competitor. In the ordinary course of things he would have been spending much of his time exploring the outer world, detail-mapping the immediate vicinity, spying on other cats, making cautious approaches to unescorted females and in all ways comporting him-

self like a fledgling male. But this was prevented by the two burly toms who lived in the houses next door and who, far more interested in murder than the pursuit of mates, had entered into partnership with the sole object of bushwacking Gummitch. Gummitch's household had nicknamed them Scarface and the Mad Eunuch, the latter being one of those males whom "fixing" turns, not placid, but homicidally maniacal. Compared to these seasoned heavyweights, Gummitch was a welterweight at most. Scarface and the Mad Eunuch lay in wait for him by turns just beyond the kitchen door, so that his forays into the outside world were largely reduced to dashes for some hiding hole, followed by long, boring but perilous sieges.

He often wished that old Horsemeat's two older cats, Ashurbani-pal and Cleopatra, had not gone to the country to live with Old Horsemeat's mother. They would have shown the evil bushwackers a thing or two!

BECAUSE of Scarface and the Mad Eunuch, Gummitch spent most of his time indoors. Since a cat is made for a half-and-half existence—half in the wild forest, half in the secure cave—he took to brooding quite morbidly. He thought over-much of ghost cats in the mirror world and

of the Skeleton Cat who starved to death in a locked closet and similar grisly legends. He immersed himself in racial memories, not so much of Ancient Egypt where cats were prized as minions of the lovely cat-goddess Bast and ceremoniously mummified at the end of tranquil lives, as of the Middle Ages, when European mankind waged a genocidal war against felines as being the familiars of witches. (He thought briefly of turning Kitty-Come-Here into a witch, but his hypnotic staring and tentative ritualistic meowing only made her fidgety.) And he devoted more and more time to devising dark versions of the theory of transmigration, picturing cats as Silent Souls, Gagged People of Great Talent, and the like.

He had become too self-conscious to re-enter often the make-believe world of the kitten, yet his imagination remained as active as ever. It was a truly frustrating predicament.

More and more often and for longer periods he retired to meditate in a corrugated cardboard shoebox, open only at one end. The cramped quarters made it easier for him to think. Old Horsemeat called it the Cat Orgone Box after the famed Orgone Energy Accumulators of the late wildcat psychoanalyst Dr. Wilhelm Reich.



If only, Gummitch thought, he could devise some way of objectifying the intimations of beauty that flitted through his darkly clouded mind! Now, on the evening of the sunny day when he had backed away from his water bowl, he attacked the problem anew. He knew he had been fleetingly on the verge of a great idea, an idea involving water, light and movement. An idea he had unfortunately forgotten. He closed his eyes and twitched his nose. I must concentrate, he thought to himself, concentrate. . . .

NEXT day Kitty-Come-Here remembered her idea about Gummitch's water. She boiled two cupfuls in a spotless enamelware saucepan, letting it cool for half an hour before using it to replace the seemingly offensive water in the young cat's bowl. It was only then she noticed that the bowl had been upset.

She casually assumed that big-footed Old Horsemear must have been responsible for the accident, or possibly one of the two children—darting Sissy or blundering Baby. She wiped the bowl and filled it with the water she had dechlorinated.

"Come here, Kitty, come here," she called to Gummitch, who had been watching her actions attentively from the dining room door. The young cat stayed where he

was. "Oh, well, if you want to be coy," she said, shrugging her shoulders.

There was a mystery about the spilled water. It had apparently disappeared entirely, though the day seemed hardly dry enough for total evaporation. Then she saw it standing in a puddle by the wall fully ten feet away from the bowl. She made a quick deduction and frowned a bit worriedly.

"I never realized the kitchen floor sloped *that* much," she told Old Horsemear after dinner. "Maybe some beams need to be jacked up in the basement. I'd hate to think of collapsing into it while I cooked dinner."

"I'm sure this house finished all its settling thirty years ago," her husband assured her hurriedly. "That slope's always been there."

"Well, if you say so," Kitty-Come-Here allowed doubtfully.

Next day she found Gummitch's bowl upset again and the remains of the boiled water in a puddle across the room. As she mopped it up, she began to do some thinking without benefit of Concentration Box.

THAT evening, after Old Horsemear and Sissy had vehemently denied kicking into the water bowl or stepping on its edge, she voiced her conclusions. "I think *Gummitch* upsets it," she said. "He's rejecting it. It still

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doesn't taste right to him and he wants to show us."

"Maybe he only likes it after it's run across the floor and got seasoned with household dust and the corpses of germs," suggested Old Horsemeat, who believed most cats were bohemian types.

"I'll have you know I *scrub* that linoleum," Kitty-Come-Here asserted.

"Well, with detergent and scouring powder, then," Old Horsemeat amended resourcefully.

Kitty-Come-Here made a scornful noise. "I still want to know where he gets his liquids," she said. "He's been off milk for weeks, you know, and he only drinks a little broth when I give him that. Yet he doesn't seem dehydrated. It's a real mystery and—"

"Maybe he's built a still in the attic," Old Horsemeat interjected.

"—and I'm going to find the answers," Kitty-Come-Here concluded, ignoring the facetious interruption. "I'm going to find out *where* he gets the water he does drink and *why* he rejects the water I give him. This time I'm going to boil it and put in a pinch of salt. Just a pinch."

"You make animals sound more delicate about food and drink than humans," Old Horsemeat observed.

"They probably are," his wife

countered. "For one thing they don't smoke, or drink Martinis. It's my firm belief that animals—cats, anyway—like good food just as much as we do. And the same sort of good food. They don't enjoy canned catfood any more than we would, though they *can* eat it. Just as we could if we had to. I really don't think Gummitch would have such a passion for raw horsemeat except you started him on it so early."

"He probably thinks of it as steak tartare," Old Horsemeat said.

Next day Kitty-Come-Here found her salted offering upset just as the two previous bowls had been.

SUCH were the beginnings of the Great Spilled Water Mystery that preoccupied the human members of the Gummitch household for weeks. Not every day, but frequently, and sometimes two and three times a day, Gummitch's little bowl was upset. No one ever saw the young cat do it. But it was generally accepted that he was responsible, though for a time Old Horsemeat had theories that he did not voice involving Sissy and Baby.

Kitty-Come-Here bought Gummitch a firm-footed rubber bowl for his water, though she hesitated over the purchase for some time, certain he would be able to taste

the rubber. This bowl was found upset just like his regular china one and like the tin one she briefly revived from his kitten days.

All sorts of clues and possibly related circumstances were seized upon and dissected. For instance, after about a month of the mysterious spillings, Kitty-Come-Here announced, "I've been thinking back and as far as I can remember it never happens except on sunny days."

"Oh, Good Lord!" Old Horsemeat reacted.

Meanwhile Kitty-Come-Here continued to try to concoct a kind of water that would be palatable to Gummitch. As she continued without success, her formulas became more fantastic. She quit boiling it for the most part but added a pinch of sugar, a spoonful of beer, a few flakes of oregano, a green leaf, a violet, a drop of vanilla extract, a drop of iodine. . . .

"No wonder he rejects the stuff," Old Horsemeat was tempted to say, but didn't.

Finally Kitty-Come-Here, inspired by the sight of a greenly glittering rack of it at the supermarket, purchased a half gallon of bottled water from a famous spring. She wondered why she hadn't thought of this step earlier—it certainly ought to take care of her haunting convictions about the unpalatableness of chlorine or fluorides. (She herself could

distinctly taste the fluorides in the tap water, though she never mentioned this to Old Horsemeat.)

One other development during the Great Spilled Water Mystery was that Gummitch gradually emerged from depression and became quite gay. He took to dancing cat schottisches and giges impromptu in the living room of an evening and so forgot his dignity as to battle joyously with the vacuum-cleaner dragon when Old Horsemeat used one of the smaller attachments to curry him; the young cat clutched the hairy round brush to his stomach and madly clawed it as it *whuffled* menacingly. Even the afternoon he came home with a shoulder gashed by the Mad Eunuch he seemed strangely light-hearted and debonair.

THE Mystery was abruptly solved one sunny Sunday afternoon. Going into the bathroom in her stocking feet, Kitty-Come-Here saw Gummitch apparently trying to drown himself in the toilet. His hindquarters were on the seat but the rest of his body went down into the bowl. Coming closer, she saw that his forelegs were braced against the opposite side of the bowl, just above the water surface, while his head thrust down sharply between his shoulders. She could distinctly hear rhythmic lapping.

To tell the truth, Kitty-Come-Here was rather shocked. She had certain rather fixed ideas about the delicacy of cats. It speaks well for her progressive grounding that she did not shout at Gummitch but softly summoned her husband.

By the time Old Horsemeat arrived the young cat had refreshed himself and was coming out of his "well" with a sudden backward undulation. He passed them in the doorway with a single mew and upward look and then made off for the kitchen.

The blue and white room was bright with sunlight. Outside the sky was blue and the leaves were rustling in a stiff breeze. Gummitch looked back once, as if to make sure his human congeners had followed, mewed again, and then advanced briskly toward his little bowl with the air of one who proposes to reveal all mysteries at once.

Kitty-Come-Here had almost outdone herself. She had for the first time poured him the bottled water, and she had floated a few rose petals on the surface.

Gummitch regarded them carefully, sniffed at them, and then proceeded to fish them out one by one and shake them off his paw. Old Horsemeat repressed the urge to say, "I told you so."

When the water surface was completely free and winking in the sunlight, Gummitch curved

one paw under the side of the bowl and jerked.

Half the water spilled out, gathered itself, and then began to flow across the floor in little rushes, a silver ribbon sparkling with sunlight that divided and subdivided and reunited as it followed the slope. Gummitch crouched to one side, watching it intensely, following its progress inch by inch and foot by foot, almost pouncing on the little temporary pools that formed, but not quite touching them. Twice he mewed faintly in excitement.

"**H**E'S *playing* with it," Old Horsemeat said incredulously.

"No," Kitty-Come-Here countered wide-eyed, "he's *creating* something. Silver mice. Water-snakes. Twinkling vines."

"Good Lord, you're right," Old Horsemeat agreed. "It's a new art form. Would you call it water painting? Or water sculpture? Somehow I think that's best. As if a sculptor made mobiles out of molten tin."

"It's gone so quickly, though," Kitty-Come-Here objected, a little sadly. "Art ought to last. Look, it's almost all flowed over to the wall now."

"Some of the best art forms are completely fugitive," Old Horsemeat argued. "What about improvisation in music and dancing?

What about jam sessions and shadow figures on the wall? Gummitch can always do it again—in fact, he must have been doing it again and again this last month. It's never exactly the same, like waves or fires. But it's beautiful."

"I suppose so," Kitty-Come-Here said. Then coming to herself, she continued, "But I don't think it can be healthy for him to go on drinking water out of the toilet. Really."

Old Horsemeat shrugged. He had an insight about the artistic temperament and the need to dig for inspiration into the smelly fundamentals of life, but it was difficult to express delicately.

Kitty-Come-Here sighed, as if bidding farewell to all her efforts with rose petals and crystalline

bottled purity and vanilla extract and the soda water which had amazed Gummitch by faintly spitting and purring at him.

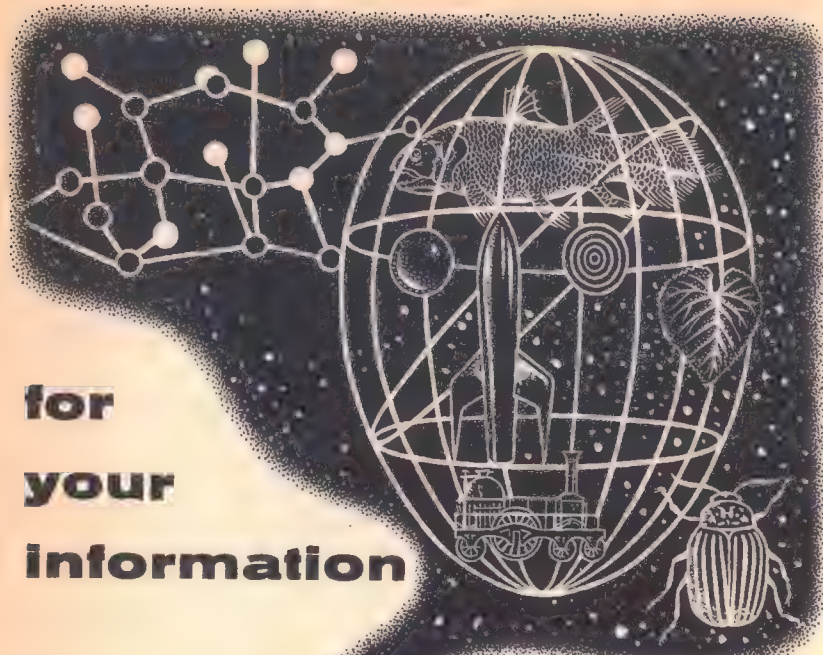
"Oh, well," she said, "I can scrub it out more often, I suppose."

Meanwhile, Gummitch had gone back to his bowl and, using both paws, overset it completely. Now, nose a-twitch, he once more pursued the silver streams alive with suns, refreshing his spirit with the sight of them. He was fretted by no problems about what he was doing. He had solved them all with one of his characteristically sharp distinctions: there was the *sacred* water, the sparklingly clear water to create with, and there was the water with character, the water to *drink*.

—FRITZ LEIBER



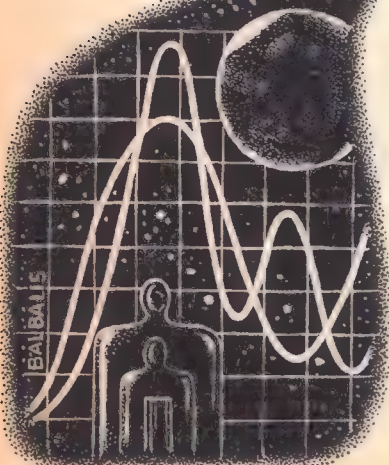
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BY WILLY LEY

THE PUZZLE CALLED GEGENSCHN

PICK a really clear night, but not in June or July, or in December or January. If there is a moon in the sky it should be a sickle only; if the moon is full or nearly full you can give up before you started. Now if you have a clear night in one of the eight months where it can be done — and where there is no full moon — try to figure out where the sun



is at the moment. Then look at the spot in the sky precisely opposite to the position of the sun.

If, in addition to everything else, your night vision is good you'll see a patch of light, very faint light.

I have never succeeded myself (I keep trying, though) but the books say that this patch of light is roughly elliptical in shape, does not have a clear outline and that its largest diameter is three to four times the diameter of the moon. That is the *Gegenschein*. The name is German. Its English equivalent would be "counterglow" and up until a few days ago I thought that the "counter" part of the name refers to the fact that it is opposite the sun. Now, having waded through old accounts, it seems equally probable to me that the *Gegenschein* has its name because it is opposite to the zodiacal light.

As has been hinted by the list of provisions in the first paragraph the *Gegenschein* is so weak that it is drowned out by the light of the full moon. The reason why two months in winter and two months in summer are ruled out is that during those months the Milky Way covers the area of the *Gegenschein*. Even the Milky Way is more luminous than this patch of light.

The *Gegenschein* was discovered by — but here we run into the first complication. The *Gegenschein* seems to have about as many discoverers as the atmosphere of Venus which was first noticed either by the American Rittenhouse or else by the Russian Lomonósov — with the fair probability that a note may turn up somewhere crediting somebody more than a century earlier.

HISTORIANS of astronomy are in fair agreement that the first discover of the *Gegenschein* was the German astronomer Theodor Brorsen. Brorsen, born in 1819 in the township of Norburg on the island of Alsen made his discovery in 1853 and published it the following year in a scientific journal under the title *Ueber eine neue Erscheinung am Zodiakallicht* ("On a new phenomenon of the zodiacal light"). But Brorsen himself stated that he was not the first to see it, and credits an observer with the name of Pézénas as having been the first to have seen it in 1730. What strikes me as strange is that it was not seen earlier.

When Giovanni Domenico Cassini was director of the Paris Observatory — from 1671 until near the end of his life in 1712 — he once spoke to his assistant

Niccolò Fatio about the zodiacal light and suggested that Fatio observe it as often as possible, which, in the temperate zone, is not very often. Fatio devoted several years to watching for the zodiacal light and wrote a treatise about his observations in 1886. It seems somewhat incredible that he should not have come across the *Gegenschein* but apparently he didn't; Brorsen was careful to check astronomical literature for forerunners of his own discovery.

Presumably because the *Gegenschein* is so hard to see nobody followed up on Brorsen's first report.

But twenty-two years later the *Gegenschein* was discovered again, this time by an Englishman, T. W. Backhouse. He lectured to the Royal Society about it. The paper was published in the *Monthly Notices* in 1876 under the title *On the aspect of the zodiacal light opposite the Sun*.

The third (or fourth, if you count Mr. Pézéas) discoverer of the *Gegenschein* was an American, Edward Emerson Barnard, whose eyesight seems to have had built-in amplifiers. He saw it one night in 1882 and thought that it was a very high thin cloud illuminated by starlight. But during the following night the "cloud" was still in the same

place. Barnard who had not been brought up as an astronomer (he was originally a photographer) did not know about Brorsen's and Backhouse's earlier papers at the time. But he immediately concluded that this was an astronomical phenomenon.

Now if we agree on the definition that everything more than 200 miles from sea level is an astronomical phenomenon Barnard's conclusion is unassailable. Unfortunately this does not tell us what it is.

THE oldest explanation ties the *Gegenschein* to the zodiacal light, which appears as a slanting cone of light that can be seen (especially in the tropics) after sunset. If you watch in the morning before sunrise the same cone of light often precedes the rising of the sun. In fact, in the Near East, where some religious practices depend on the moment of sunrise, the zodiacal light had been noted down under names meaning "false dawn" as having no religious significance. (According to Alexander von Humboldt, in his *Kosmos*, vol. I., page 145 of the original edition, the inhabitants of Mexico knew the zodiacal light prior to 1500.)

Because of this shape its first systematic observer, Niccolò Fatio, concluded that the zodia-

cal light was actually an accumulation of dust particles in space, generally lens-shaped, its central plane more or less coinciding with the ecliptic, and illuminated by the sun. Fatio, and many others, thought that the diameter of this dust lens was less than the diameter of the earth's orbit.

Now, some astronomers said after the discovery of the *Gegenschein*, all we have to do is to assume that the dust lens, in an attenuated form, extends beyond the earth's orbit. Each dust particle would naturally behave like a tiny moon. Those particles closer to the sun than we are would turn their dark backsides to us and we could not see them. Those at the same distance from the sun as the earth would show a half-moon phase, but since there are not many of them we don't notice them. But those farther away would have "full phase", comparable to the full moon when it is farther from the sun than the earth. Those we see, as a very dim patch of light.

That the *Gegenschein* is always opposite to the sun is, therefore, easily explained. The laws of optics demand it; we see only those which, to us, are fully illuminated. And they are opposite the position of the sun.

Barnard himself improved on this idea by pointing out that the earth's atmosphere should act as

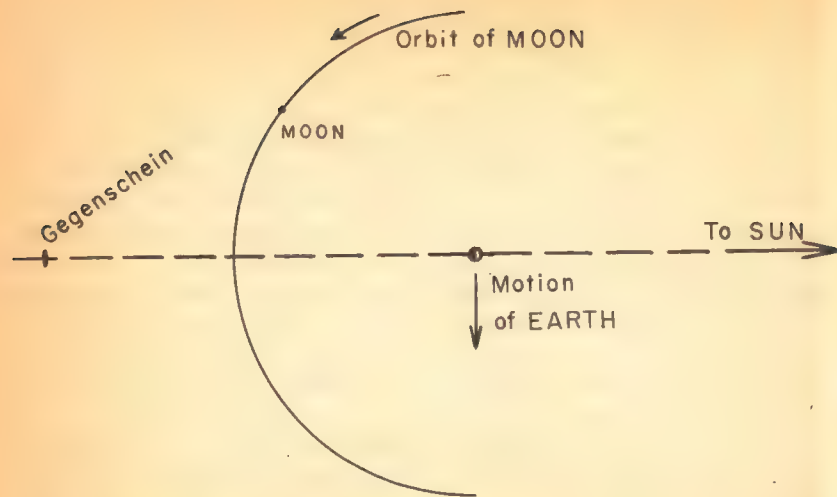
a lens and concentrate sunlight in that direction.

The reason why anybody bothered to think of additional explanations was that, as time went on, astronomers had less and less use for that much dust in space and found more and more reasons to doubt its existence.

BUT a little dust was permissible, hence the *Gegenschein* might be an isolated dust cloud.

It could be mathematically proved that a body located on the line connecting the center of the sun and the center of the earth would be dragged along by the earth, if it was located either somewhat closer to the sun or somewhat farther from the sun. There were just two conditions, in addition to the location on that line. One was a certain distance, 900,000 miles from the earth, if the body was farther away from the sun. The *Gegenschein* could be at just that distance. At any event one triangulation placed it a million miles from earth. The other condition was that the body to be dragged along had to have a very small mass as compared to the mass of the earth. Well, obviously a dust cloud would be virtually massless as compared to earth. (See Figure.)

In between, some other re-



Relative positions of Earth, Moon and Gegenschein. (Not to scale.)

searchers, for example Svante Arrhenius, pointed out that they had reasons to believe that our earth had a very tenuous tail, like a comet. And like a comet's tail it would point away from the sun. The *Gegenschein* was simply this tail, as it appeared to people looking from its origin along its length.

Still later—beginning in about 1937—Dr. Edward O. Hulburt, then one of the research directors at the Naval Research Laboratory, evolved another theory which has some similarity to the comet tail postulated by Arrhenius. It goes under the name of “atmospheric ion theory.” It assumes a hairpin-shaped “veil” of

ions around the earth, with the two “legs” of the hairpin pointing away from the sun. The light of the *Gegenschein*, according to this theory, is the end on view of the “legs” of the veil, much as thought by Arrhenius. The zodiacal light would be caused by the ions of the hairpin's bend, re-emitting solar energy as visible light.

In about 1949 the Russians began to feel that some modern work should be done on both zodiacal light and *Gegenschein*, and at the Gorna Astrophysical Observatory at Alma Ata they tried to take spectrograms of both. They succeeded in taking spectrograms, but these turned

out to be just somewhat more powerful versions of the lines that the night sky would produce anywhere.

The puzzle of the *Gegenschein* is still unsolved.

Could we do something with a space probe?

Well, if the old dust cloud theory is correct the answer is yes. But trying to shoot a rocket into the *Gegenschein* would be tricky indeed. Shooting “straight out” is an impossibility. What could be tried is to shoot past the moon when the moon is in about the position shown on the diagram. Then, if the rocket passes close enough (it might also have to be slowed down) the moon would deflect its path to the extent that the so-called “escape leg,” after passing the moon, will point in the direction of the *Gegenschein*. Some additional guidance would certainly be needed. In fact, the whole shot looks too difficult for the immediate future.

But if we do get a space probe to go through the *Gegenschein* we would know what it is.

In the meantime I'll keep trying at least to see it.

The Annexation of Patagonia

HAVING been told by my readers that they like my column to be as far-ranging as

possible, the virtually forgotten story of the “annexation” of Patagonia by the German Empire might prove to be amusing, especially since it has a scientific aspect.

The year was 1886, at the time when all the European powers grabbed colonies wherever they could. And the unwitting “hero” was Dr. Ludwig Brackebusch, professor of mineralogy at a university in Argentina, a native of Northeim in Germany and recipient of a Ph.D. from the nearby University of Göttingen.

The news first “broke” in a small newspaper which served both Northeim and Göttingen, the two townships interested in Dr. Brackebusch as a native son. The paper reported that Prof. Brackebusch—in a manner which was left completely unexplained—had annexed all the land to the south of 48° southern latitude and for some distance to the west of 54° western longitude, generally known as Patagonia. The article went on to say that the erection of a meteorological station at Cape Horn was being planned and that the newly annexed area should have some profitable aspects. To begin with, tobacco growing had just been undertaken there and was found to be very promising. And the land was thickly dotted with

copses of a tree popularly known as the vinegar pear (scientific name: *Pirus communis* var. *acetosa*). While the fruit of this tree was unlikely to find a wide market, the wood would be welcome since it was just like mahogany.

That news of such far-reaching importance as the acquisition of a whole new colony should originate in an obscure provincial paper was explained by the bigger newspapers as presumably due to the fact that Prof. Brackebusch had first told this fact to members of his family. At any event a dozen other German newspapers reprinted the story, papers which were progressively more important.

Naturally the "news" was taken over by other newspapers, especially in England. A notice even made the *Times* in London. As for Prof. Brackebusch he was peacefully teaching mineralogy all along. Until, one day, he received a letter from the government of Argentina, firmly requesting his presence in Buenos Aires on a certain day and at a certain time. In Buenos Aires they considered Patagonia a part of Argentina and nobody was ready for a compromise of any sort.

Well, Brackebusch could prove that he had not been absent from the campus for long enough even to take a trip to Patagonia

and the session ended with both head and handshaking. Fortunately it soon turned out that a group of graduates in Göttingen, after imbibing a sufficient quantity of beer, had written the original notice in the little paper. The storm blew over. Brackebusch, about a year later, called on them during a leave of absence, armed with specially printed calling cards reading

Prof. Dr. Ludwig Brackebusch
Protector of Patagonia

and in general nobody was harmed or mad for very long.

Oh, the scientific aspect of the story? Nobody—but nobody—had checked the coordinates on a map. The ocean there is probably two miles deep.

Mathematical Note on Seven-League Boots

IT was probably inevitable that somebody who recently saw me off at an airport, looking at the Boeing 707 jet waiting for me, remarked "Now you step into your seven-league boot and you'll be in New York in about five hours." This sounded like a nice literary remark at the time, but later, during the flight, I started to think in figures.

Part of it was due to the fact that I remembered a science

fiction (or fantasy) story I had read more than 30 years ago. The story—it was of short novel length, and I seem to remember that it was of French origin although I wouldn't swear to it—began with the incident that a corpse is found on a country road. It is a corpse of a fairly young man, mangled and bruised and cut beyond description. Every bone in his body is broken and there is just enough left of his face to make a drawing for a public poster asking, "Has anybody seen this man recently?" The only thing which is not damaged are the high walking boots the man is wearing; they are new, Russian style, well made and in perfect condition.

A week or two later the wife of a dairy farmer reports to the police. Yes, she had seen the man, on the same day he was found dead. He had come asking for something to eat. She had given him something to eat and, seeing that his shoes were in an impossible condition, had given him the boots which had been around the house. When she turned around the man was gone, without even having said thank you. And the boots, the policeman wanted to know, did they belong to your husband? No, said the woman, we took them off a man my husband and the gendarme found dead in the for-

est a few years ago after the spring thaw. He could not be identified and he was in rags. But his boots were too new and too good to be buried with him.

The story is, of course, that the narrator then traced the indestructible boots backward until he had seven cases of dead bodies, all wearing new Russian style walking boots. And each corpse was found seven leagues from the place where the man had been given a new pair of boots by somebody who felt sorry for him.

Well, my modern seven-league boot, the 707 jet, was making about ten miles a minute at the time, flying high up in thin air to reduce aerodynamic drag. This was fast all right, but not yet as fast as the seven-league boots. At normal walking pace you make about three steps in two seconds. In sixty seconds you make, therefore, 90 steps. Wearing the seven-league boots you would cover 90 times 7 leagues. Since the league is usually defined as three statute miles, this means you would walk 630 miles per minute or 37,800 miles per hour.

Regretfully I had to conclude that the author of that partly remembered story (which was such a nice idea) had made a mistake. His conclusion was that the seven-league boots had been

created by an evil magician to claim victim after victim. They would have done no such thing. The very first man to wear them, with his very first step, would not only have gone into orbit but would have acquired more than escape velocity and would have disappeared from this earth forever.

ANY QUESTIONS?

If I stood on another planet would the sky look different? Could I, for example, see the Southern Cross?

*Dorothy Steinfeld
Elizabeth, N. J.*

My first impulse, when I received this question, was to write at the bottom of the letter, "Yes, provided you look in the right direction," but then it occurred to me that this is a far more interesting point than it appears to be at the surface.

The general answer is, of course, that, as far as the so-called fixed stars are concerned, it does not make any difference whether you look up from the night side of Mercury or from the surface of Neptune's larger moon, 2,760 million miles from Mercury. The major constellations will look alike from any planet in our solar system. It is true that the distance just mentioned

would cause a minor shift for a few nearby stars, but that would not be enough to be perceptible to the naked eye. But otherwise the sky would look different from different planets.

Let's quickly run through the list. From the bright side of Mercury you wouldn't see anything. An eye adjusted to the sun glare of the bright side would not be capable of registering star images. From the night side of Mercury you would see two really brilliant "stars" (Venus and Earth) but aside from them the picture of the sky would be the same as from Earth. From Venus, if you could look through its atmosphere, Earth would be the most brilliant star and Mercury would look much brighter than it does from Earth.

The sky as seen from Mars would be fairly different. To begin with you would have two evening (or morning) stars, Venus and Earth, with the Earth much the brighter of the two. Then you would have another very bright star, nearly motionless, namely the outer moon of Mars, Deimos. The inner moon, Phobos, would provide most of the entertainment. It would rise in the West and climb to its zenith in 2 hours and 9 minutes, increasing visibly in size and also changing its phases in the process. When at its zenith, twice

out of three times, it would wink out, eclipsed by the planet's shadow.

The view from one of the moons of Jupiter would again be much different. Of course, the massive planet would be the dominant object in the sky. If you were on one of the smaller moons of Jupiter the four large moons would be interesting sights, too. The Sun would have only about 1/5th the apparent diameter as compared with the view from Earth, still showing a small disk of incredible brilliance. The other small moons of Jupiter would not be visible to the naked eye. Of the inner planets, Venus and Earth should be visible quite close to the sun. It is very likely that the two clusters of the "Trojans"—the small groups of asteroids in Jupiter's orbit, 60 degrees ahead of and behind the planet—could be seen. Since the eye very likely would not be able to tell the several bodies apart they might look somewhat diffuse. And at times the brightest planet in the sky would be Saturn, naturally.

The sky as seen from one of Saturn's moons is again something different. Again the planet would be the dominant object in the sky. Since all of Saturn's moons are fairly large, the other eight should be visible from any of the nine. The sun would be

down to one-tenth of the size to which we are used but still would shed a large amount of light. Jupiter would be the most brilliant planet in the sky. The inner planets would no longer be naked-eye objects. Of course if Saturn and Uranus are in the same sector of their respective orbits, Uranus would also be a very bright planet. Naturally Neptune, if in the proper sector of its orbit, would be a naked-eye object.

From one of the moons of Uranus the sky would be mostly the sky of the fixed stars. Of course the other moons of Uranus would be clearly visible. Of the planets, Jupiter, Saturn and Neptune would be naked-eye objects. But Neptune would put in an appearance only several centuries apart, Jupiter would appear to be close to the sun (and the sun would just be a brilliant star) so that the planet that could be seen much of the time would be Saturn—with disappearances amounting to about a dozen Earth years. And from Neptune's larger moon you would see the fixed stars, a brilliant star (the sun), the smaller moon of Neptune on frequent occasions and for long periods not a single one of the other planets.

But from each planet—especially if you had a pair of binoculars to help you—the ap-

pearance of the constellations would be typical enough so that one hour of observation would tell you where you are.

Why is a division by zero undefined? If you answer that it is undefined by definition (paradox?) why doesn't somebody define it?

Charles T. Warren
West Chester, Penna.

This is a question which requires two answers, and I don't think that two answers to one question is too paradoxical. The first answer is that mathematicians, like lawyers and judges, do not always use the Queen's English the way other people do. Mathematicians will say, without batting an eyelash, that the "trivial divisors" are naturally ruled out and that they expect a "unique" solution to this problem. But a "trivial divisor" just means either the figure itself or else "one," while a unique solution is not an unusual one but merely means that there is only one solution.

Now for the "undefined" dividing.

You realize easily that multiplying a figure by zero will always

result in zero—because the request to multiply 5, or 57 or 457 by zero is a request not to multiply it at all, not even once. Now if you tried to divide by zero you would have the following: The figure M is to be divided by N, with X as the result. Logically, then, N times X must equal M. Now let us assume that $N = 0$ so that you divide M by zero and start looking for the value of X, assuming, naturally, that M is a figure other than zero.

The equation $N \text{ times } X = M$ now has turned into zero times $X = M$. But zero times X is zero, hence M would have to be zero too which makes the whole operation nonsense because this produces $X = 0/0$.

Going over the procedure once more slowly, you'll realize that you either find that X just doesn't have any logical value, or else you find that zero times X equals zero—which we knew all along. Hence, some mathematicians call this operation "undefined," with the meaning that it doesn't yield a result. Other mathematicians feel more strongly about it and have added a commandment saying, "Thou shalt not divide by zero."

— WILLY LEY

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SCENT MAKES A DIFFERENCE

By JAMES STAMERS

What I wanted was a good night's sleep. What I got was visitation rights with the most exasperating pack of sleepwalkers in history.

Illustrated by DICK FRANCIS



A FRIED egg came floating up through the stone steps of the Medical Center and broke on my shoe. According to my watch, it was time for the breakfast I didn't have that morning, so I waited a moment for the usual two rashers of bacon.

When they materialized, I hopped aside to avoid them and went back into the building, where the elevator took me straight up to the psychiatric floor, without asking.

"Your blood pressure, salts, minerals, vitamins, basal metabolism, brain pattern, nervous reflexes and skin temperature control are within accepted tolerances," it droned, opening the doors to let me off. "You have no clinical organic disorders; you weigh a hundred and fifty-two pounds, Earth, measure six feet one inch, and have a clear pallid complexion and an egg on your shoe."

I walked down the corridor to Dr. Doogle Spacio-Psycho Please

Enter and went determinedly in. "Name, please," said the blonde receptionist, tapping her nail eroder.

"Jones. Harry Jones."

"Mr. Harry K. Jones, the physicist?"

"Yes."

"Oh, no," she said, fiddling with the appointment list, "Mr. Harry K. Jones has just had his morning appointment and left."

"I know," I said. "An important piece of clinical data has just turned up. I have returned with an egg on my shoe."

"I think you'd better see the doctor."

I sat down to wait and took the little bottle of pills from my pocket. "From the Galaxy to you, through Dr. Doogle, Spacio-Psycho," it said on the label. "The last word in tranquilizers. Conservative Zen methods only, appointments any hour, first consultation free, no obligation, call personal transmitter DDK 51212-6790, Earth. Active ingredients oxylatohydrobenzoic-phe-

opphenophino, sugar, coloring to 100%."

THE inner office door opened and Dr. Doogle smiled fatly at me from behind his expensive desk.

"Do come in," he called, "and tell me all about it."

"It's happened again," I said, going into his office.

"Well, why not, if you feel that way? Nurse, bring me Mr. Hing-humph's case history."

"Mr. Har-ry K. Jo-n'es' film is in the transcriber, Doctor," said the receptionist. "Mr. Jones, the physicist."

"Ah, yes, of course. Please sit down, Mr. Jones. Now what exactly is the trouble? Hold nothing back, tell me all, reveal your intimate thoughts."

"The main entrance just served me the breakfast that your diet forbids," I said, sitting down.

"Plain case of wish fulfillment. Put it down to poltergeists, Mr. Jones."

"And what exactly do you mean by that?"

"Well, now," Dr. Doogle said, drumming his fat fingers, "I don't think we need to go into technicalities, Mr. Jones."

"Look," I said firmly. "I came to you to get a quiet night's sleep. No more insomnia, you said, leave your problems in the laboratory, let not the nuclei

banish sleep, work hard, sleep hard, take tranquilizers and enjoy the useful recuperation of the daily wear on body tissues, deep dreamless sleep of the innocent."

He look at me suspiciously.

"It sounds like the sort of advice I might have given," he admitted.

"Well, at least I managed to keep my dreams in my head until I started your treatment. I have an urgent problem to solve that vitally affects national security. I can't have this sort of thing happening in the middle of an experiment."

I pointed to the fried egg on my shoe and shook it off on the pile of his green carpet.

"Yes. Well," he said, peering over the desk at it. "If you feel that strongly, Mr. Jones, perhaps you'd better give up the diet and just take the pills."

"I want to know how it happens," I said, and I settled firmly into the consulting chair.

Dr. Doogle coughed professionally. "Of course, of course. You are an intelligent man, Mr. Jones. One of our leading physical scientists. Naturally you wish to know the precise mechanism of such phenomena. Very commendable and entirely natural. Think no more about it."

"Dr. Doogle, do you know what you are doing?"

"Spacio-Psycho is still in its

early stages, Mr. Jones. You are really privileged to be a pioneer, you know. We have had some most interesting results with that new tranquilizer. I hope you're not losing faith, Mr. Jones?"

"I accept the orthodox philosophy of Spacio-Psycho, it is only the basic philosophy of Ch'anna or Zen, and I had the routine scientific education, naturally."

"Ah," said Dr. Doogle with rapture, "the substratum of the universe is no-mind, and thus all material things are in constant unimpeded mutual solution. Ji-jimuge, the appleness of an apple is indistinguishable from the cup-ness of a cup."

"And an egg on the shoe is the breakfast I didn't have," I said.

"Here," he said. "I think those pills are sending your sleeping mind down beyond the purely personal level of your own emotions and subconscious cerebrations. Take these, in a little water, half an hour before going to bed."

I stood up and walked over to the door.

"What are they?" I asked.

"Same as before, only stronger. Should send you right down to the root of things. Pass quiet nights in no-mind, Mr. Jones, sleep beyond the trammels of self, support yourself on the uni-

versal calm sea of no-mind." "If these don't work, there'll be no-fee," I told him.

I TOOK three of the stronger pills that night, turned off the light and lay back in bed, waiting for sleep to come and get me. The antiseptic odor of the Medical Center recalled itself, but nothing else happened, and I was still waiting to go to sleep when I woke up next morning. No dreams of a breakfast I couldn't eat, no dreams at all. I had been smelling the memory of formaldehyde and just slid off to sleep. I could still smell it, for that matter, as if it were coming from the slightly open bedroom window. I looked up.

"Hallo," said the tall skinny man in a doctor's coat on the window sill.

"Hallo yourself," I said. "Go away, I'm awake."

"Yes, you are. At least I assume you are. But I'm not."

I sat up and looked at him, and he obligingly turned his head to profile against the brightness of the window. He had a sharp, beaky face that was familiar.

"Haven't we met somewhere?" I asked.

"Certainly," he said, in a slightly affected voice.

"Well?"

"I don't know your name," he said, "but I have a very impor-

tant post-operative case at present, and you keep charging around the ward when you're asleep. I just came over, as soon as I could get a few hours sleep myself, to ask you to stop doing it, if you don't mind."

"I've done no such thing."

"You were doing it all last night, my friend."

"I was not," I said. "I spent last night here in my own bed. I didn't even dream."

"Ah, that probably accounts for it. Tell me, do you take drugs, tranquilizers, by any chance? We've had a lot of trouble with that. They seem to cause a bubble in the sequence of probabilities and things shift about. I've been taking a new one myself, while this case is on. I suspect that although I'm dreaming you, I think, you are not asleep at all. At least I wasn't when you made all that noise in my ward last night."

"No, I'm awake," I said. "Very much so."

"I see. Well, I shall wake up soon myself and go back to my own world, of course. But while I'm here, I suppose you haven't any advanced works on post-operative hyperspace relapse?"

"Pity," he said, as I shook my head.

"I suppose you have no information on the fourth octave of ultra-uranium elements?"

He shook his head. "Didn't even know they existed," he said. "I don't believe they do in my probable time. What are you, a physicist? Ah," he added, as I nodded, "I wanted to specialize in physics when I was in college, but I went in for medicine instead."

"So did I," I said, "medicine, I mean, but I never passed pharmacology with all those confusing extraterrestrial derivatives."

"Really?" he said interestedly. "It's my weakest subject, too. I'm a pretty good surgeon, but an awful fool with medications. I suppose that's how we got together. You won't come busting up the ward again, will you?"

"I'd like to be obliging, but if I don't dream and I don't know where I am when I'm asleep, I don't see what I can do to stop it. It's not as if I'm really there, is it?"

HE CROSSED his arms and frowned at me. "Look," he said. "In my probable time, you're as much physically there as I am now in your time here. I'll prove it. I know I'm asleep in the emergency surgeon's room in my hospital. You know you're awake in your bedroom."

He held out his hand and walked across the floor to me.

"My name's Jones," he said.

"So's mine," I answered, shaking his solid hand. "This must be a very vivid dream to you."

We smiled at each other, and as he turned away, I caught sight of his reflection in the wall mirror beside my hairbrush on the cabinet.

"Good heavens!" I said. "In a mirror, you look exactly like me. Is your name Harry Jones?"

He stopped, walked over to the mirror and moved about until he could see me in it.

"Harold K. Jones," he said. "You've got the face I shave every morning, but I've only just recognized you. You're me."

"I prefer to think you are me," I said.

"So you did fail that final pharmacology exam, eh? And I didn't, in my probability. Well, well. I must admit it seemed more probable I would fail at the time, but I passed."

"It was that tramp Kate's fault. She said yes too easily."

He coughed and looked at his fingers. "She said no to me. And, as a matter of fact, after I passed I married her. She's my wife."

"I'm sorry. I meant nothing personal."

"You never married?"

"I never really got over Kate," I said.

"I wonder what would have happened if I had qualified and then not married her."

"You mean what *did* happen — to the Harry K. Jones who passed in pharmacology but did not marry Kate. He must be around in another probability somewhere, the same as we are. Good heavens," I shouted, "somewhere I may have solved the fourth octave equation."

"You're right, Harry. And I may have found out how to get hyperspace relapse under control."

"Harold," I said, "This is momentous! It is more probable that you-I and I-you will make a mess of things, but there must be other probability sequences where we are successful."

"And we can get to them," he shouted, jumping up. "Are you using oxylatohydrobenzoic-pheno-phenophino?"

"Something like that."

"Three pills last thing at night?"

"Yes."

"Ever have foreign bodies materialize into your time-space?"

"Several breakfasts," I said. "The last egg was yesterday, on my shoe."

"It was Virginia ham with me, so I stopped dieting and increased the dosage."

"So did I," I said. "I suppose, apart from major points where a whole probability branches off, we lead much the same lives. But eggs don't dream. How did

the ham get into your waking world?"

"Harry, really! I have a tendency to jump to conclusions, which you must control. How do you know eggs don't dream? I would have thought, though, that a pig was peculiarly liable to the nightmare that it will end up as a rasher — any reasonably observant pig, that is. But I don't think that is necessary. Obviously, we are dipping down to a stratum where things coexist in fact, and not merely one in fact and the other in mind, or one probability and not its twin alternative. Now, how do I get hold of the me that solved this hyperspace relapse business?"

"And I the ultra-uranium octave relationship," I added.

"Look out," he said. "I'm waking up. Good-by, Harry. Look after myself . . ."

He flickered, paused in recovery and then faded insubstantially away. I looked around my empty bedroom. Then, because it was time to go to work at the laboratory, I shaved, dressed and left my apartment, as usual.

SOME high brass and politicians had been visiting the laboratory, showing off to their females how they were important enough to visit the top-secret bomb proving labs, and the

thick perfume was hanging in the sealed rooms like a damp curtain.

"I wish they wouldn't bring women into the unventilated labs," I grumbled to my assistant.

"Never mind, Chief. If you can make this bomb work, they'll let you build your own lab in the Nevada desert, with no roads to it. Have you found the solution?"

"I'll tell you when I have," I said. "But I do have a new approach to the problem."

And as soon as I could, I left the labs and went back to my apartment downtown, took three pills and lay still, waiting for sleep. I could not get the smell of that perfume in the lab out of my nose. It was a heavy gardenia-plus-whatnot odor. I woke up in the middle of the night with the perfume still clinging to the air. The room was dark and I crossed my fingers as I leaned over to turn on the bedside lamp. If mental concentration on all the possible errors in my work was the key, the successful me should be here in the room, snatched from his own segment of probability.

I turned on the light. There was no one else in the room.

"Hell," I said.

Perhaps it just meant he, or that me, was not asleep, or was perversely not using tranquilizers.

Or didn't that matter? No, I controlled this alone and had gone wrong.

"Did you say something, Harry?" asked Kate, stepping out of the bathroom and pulling the top of her nightgown into, I guess, place. "Ooo, fancy dreaming about you. This is odd."

I sat up and covered myself protectively in the bedsheets.

"Look, Kate," I said. "I don't want to see you. I'm not your husband, really. He's a pleasant fellow, I met him today, and he's not me. I never became a doctor. No doubt you remember what I was doing instead of studying."

That was a mistake, for she came and sat on the edge of the bed and ran her fingers into my hair.

"I thought it was odd I should dream about my husband," she said. "I'll believe you, because I don't know how I got here and you do look like the Harry I used to know, before he went all high scientific surgeon and no time for fun."

She curved more fully than she had when she was eighteen, but there was neat symmetry to her sine formulae, and she still had blonde hair. Her perfume was the same as the one in the lab I had been smelling all day, it was now reaching me at high amperage.

So that was the key, the

evocative power of smell association. I sniffed deeply at the perfume in appreciation.

"Like it?" Kate asked, wriggling.

"Only for its scientific values," I said. "It suggests a most valuable line of research."

"I'm in favor," she said, and pressed me to the bed.

"Your husband is coming!" I shouted, and it worked. She disappeared. Presumably she woke up in her own probability time-space. And no doubt Kate's reflexes by now were trained to snap her awake and away at the suggestion that her husband was around. It was highly improbable that Kate would alter much.

I got up to make myself some coffee. There was no point in wasting sleep without a plan. Clearly, I had to take the pills and fix the appropriate smell in my mind, and when I woke up I would drag the proper slice of another probability with me. And then I would interview the me who had solved the ultra-uranium heavy element equation. And the bomb to end all bombs would be perfected. The test was ready, waiting for me to say, "Let's go, boys. We know what will happen this time."

But there was, it struck me, the difficulty of finding the right scent to evoke the right probable me.

I COLLECTED all the toothpaste, deodorant, shaving stick, aftershave lotion I could find in the bathroom and started on the toothpaste. I inhaled deeply and lay down, with the first tube on my chest. But after the coffee, I slept very briefly, and when I looked up there was only a toothbrush on the carpet.

It was not mine in this world and I had no idea whose it was, or rather which probable me it belonged to.

But at least this established the principle. The smell produced the object — and, if I went deep enough in sleep, it would produce the whole Jones.

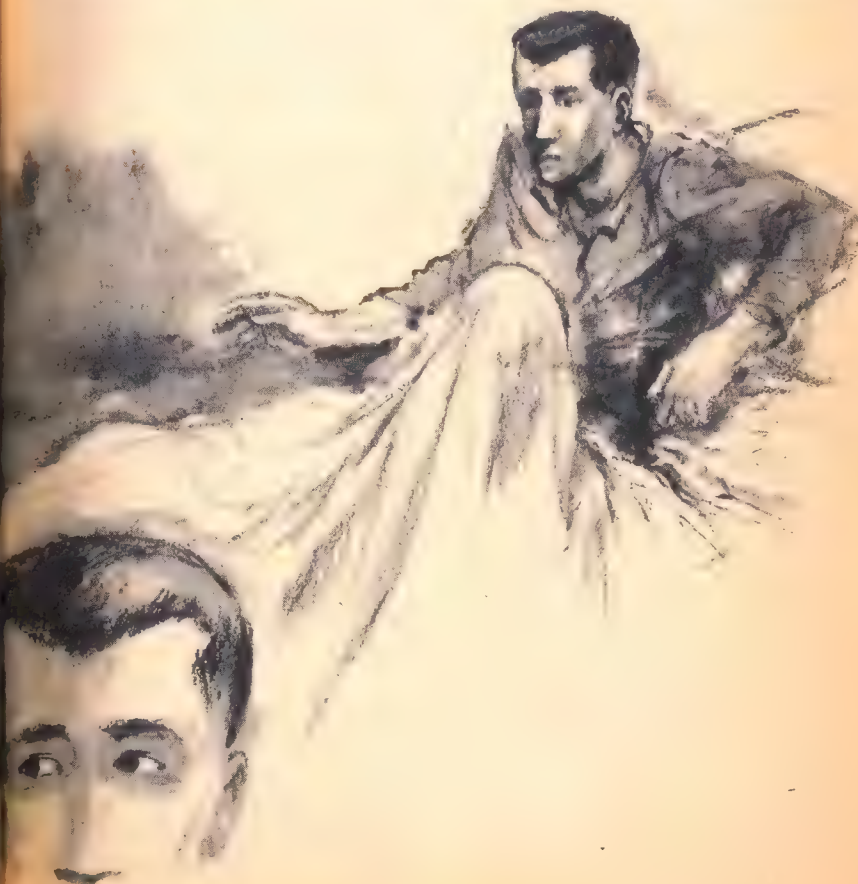
I dressed quickly and went out

for a walk in the night air, breathing deeply and memorizing every scent I came across. Then I went back to the apartment, sniffed hard at the row of personal unguents, and lay down to sleep.

When I woke up, it was morning and the room was full of people.

There were about a dozen of me, some wearing very odd clothes, some scowling, others grinning unbecomingly, and some looking just plain stupid.

"Gentlemen," I said, standing up on my bed, "I am sorry to disturb your dreams but a matter of vital consequence has made me call you all here. I am Harry,



or Harold K. Jones, and I became a physicist. I need your help. Do any of you know anything about the octaves of elements beyond uranium?"

There was a babble, through which I heard chiefly:

"The man's mad . . . He says he's me . . . Who are you, anyway? . . . No, you're not. I'm Jones . . ."

"Please, gentlemen," I said. "I don't expect we have much time before some of you wake up in your own probability. You, sir, in the armchair — yes, you in the tight pants — how about you?"

"Me?" he said. "I'm Captain Jones. Third Vector Spacefleet. Engineer rank. Who the galactic hellix are you, eh?"

Even from the bed, I could detect the smell of sweat and grease from his working uniform.

"I suppose you took up flight engineering at high school?" I suggested.

"Quite right," he snapped.

An early deviation, obviously. I remembered being enthralled with the arrival when I was a kid of the early space rockets, but my enthusiasm was daunted by old Birchall, who made us stick to airplanes. Obviously, his was not.

"How about you?" I asked, pointing to the thinnest me in the room.

"Penal colony on Arcetus," he said. "Eternal labor."

"Oh, I'm sorry. I wonder which time — well, how many physicists are there here, or physical chemists, or astronomers, or even general scientists?"

I walked around the room, detecting toothpaste brands A, B, C and Whitebrighter, and a range of toilet preparations with manly odors contributing to our popularity with friends, relatives, girls and bosses, but no other physicist. Not a trace of research in my line. And one or two of them were already showing signs of waking up elsewhere and disappearing from the room.

I was about to start tracing it back to the point when I abandoned a medical career, and I could still smell the formaldehyde, when Dr. Harold K. Jones appeared.

"Look," he said, "I want you to keep away from Kate. Perhaps I didn't make that clear yesterday . . . Good heavens, where did you get all of these me from? Does anyone here know anything about post-operative hyperspace relapse?"

DISGUSTEDLY, I saw that more than half of them did. Perhaps I should have been a doctor, after all. The probabilities were heavily represented in medicine. I sat on the bed and

stared at my toes while the doctors babbled excitedly together. I gathered that Dr. Harold K. Jones had solved his problem, anyway.

"Excuse me," said a thoughtful me in a very quiet voice. "I didn't want to make myself obtrusive, but I did do a certain amount of research on the theoretical possibilities of elements heavier than uranium. It seemed to me they might go on being discovered almost indefinitely."

"They are," I said quickly, "octave after octave of them. Tell me about it, please."

"Look," he said, "it was only an idea. I really specialized in biochemistry, but we do use trace elements, and the formula I worked out at the time was — let me see . . ."

"Please try to remember," I said.

"Ah, yes, it was this," he said, and the strain of remembering woke him up and he disappeared back to his own probability.

"This was damned well planned, Harry!" said Dr. Harold K. Jones enthusiastically. "I think we can save hundreds of people every year now. I always knew I had it in me."

"Listen, Jones," said Captain Jones of the Third Vector Spacefleet, pushing himself through the crowd. "I've been talking to

one or two of the others, see, and if you have the galactic gall to disturb my sleep again, I'm going to blast you. Is that clear?"

"Perfectly," I said.

"It's tricky out in space, you know. No hard feelings, but the fraction of a micro-error and *poof!* You see what I mean. I must get a sound sleep at stand-down."

"Don't forget what I said about Kate," Dr. Harold K. Jones remembered to warn me. "I know how to do it, too. And you can have an accident with my instruments — easily."

He disappeared. I watched as the others woke up and went, one by one, even the felon from Arcetus, until they were all gone and I was alone with dark thoughts on heavy elements. It was so improbable that I was the only me who had worked on these lines, and very probable that if two of us with similar minds did work on the same problem, we could between us find the answer. Look at Dr. Jones and his hyperspace relapse.

Thinking of Dr. Jones made me think of Kate, and I fell asleep again with the memory of her scent in my head, as if I were really smelling it. When I woke up again, halfway through the morning, there she was in my room. She was at least dressed

this time, but she smiled familiarly at me.

"For God's sake, Kate," I said, "go back to your husband!"

SHE BEGAN to cry. "Oh, Haroldkin," she said. "I'm so glad to see you. I must be dreaming, because I know you're dead, but I've kept everything just the way it was. Look — I haven't even touched your messy desk."

"Are you sitting in a room?" I asked.

"I'm in your study, Haroldkin," she said, surprised. "Can't you see?"

"No, as a matter of fact, I can't."

"Oh! Then I can throw out all these old papers?"

"What old papers?"

"Oh, I don't know, Haroldkin," Kate said. "You made such a fuss about failing that silly medical exam that you never let me touch your desk when you graduated in physics."

"Physics!"

"Yes," said Kate, throwing paper after paper onto the carpet. She made sweeping motions in the air and dumped a mass of notes into her lap. They appeared on her fingertips, but they stayed in existence when she dropped them on the carpet.

"How did I die?" I asked, bending down and thumbing rapidly over the papers.

"A bomb went off," she said. "I really don't want to talk about it. But you were so *eminent*, Haroldkin!"

I must have been very soft in the discrimination to have allowed that revolting nickname, I thought, but it was clear from the papers I was holding that I knew my physics. And there it was, printed in an issue of the *Commission's Journal* that never existed in my time-space, the whole equation I was looking for. It was so obvious when I read it that I could not understand how I failed to think of it for myself — for my own myself, that is.

When I looked up, this probable Kate had gone. I wanted to thank her, but the evening would do. Meanwhile, here was the ultra-uranium fourth octave equation.

I called the laboratory, read it off to my assistant, and told him to get on with the test.

"Right, Chief. I'll go down myself and give you a report when I get back."

I said fine and took the rest of the day off. It was the peak of my career so far, and from the widow Kate's comments, it seemed as if I had a great probable career to come. Of course, I would have to redouble our safety precautions at the labs and it would be best if I never

went near the proving grounds. That other physicist me probably made some error that I would avoid, being forewarned.

By evening, I decided to try to locate that probable Kate again, to thank her, and to find out exactly how that poor me blew himself up with a bomb. With care, I recalled the perfume and also the musty smell of the papers, for I did not want Dr. Harold K. Jones' Kate appearing. Then I removed all other odoriferous substances from the bedroom, took three pills and was about to lie down to sleep when

my assistant called to report on the test.

"That you, Chief? What a success! We're made. Your name's in lights, Chief! It was the most colossal explosion I've ever seen. It burned the area like toast. It even smelled like toast, with a touch of ozone and sulphur. Very strong smell . . ."

"Stop!" I screamed. "Stop!"

But it was too late. I could smell it clearly as he had described it. And now the pills are working. How in the name of heaven am I going to stay awake? Because once I fall asleep . . .

—JAMES STAMERS

GALAXY NOW IN BRAILLE

A few months ago we announced that *Galaxy Magazine* was to be available for the blind in a Talking Record edition. Now we are also to be found in Braille. Starting with the October, 1960, issue a Braille edition has been printed by blind workers at Clovernook Printing House, published by Galaxy Publishing Corporation through the facilities of the Library of Congress.

Each Braille issue runs to four parts. If you have sightless friends who enjoy science fiction—or who you think might if they had a chance to read it—copies of the Braille edition may be obtained from the Regional Library for the Blind.

Periodicals to be reprinted in Braille are chosen by the number of requests from sightless persons. *Galaxy* is the only science-fiction magazine to be available in this form.

I CAN DO ANYTHING

*When a man makes that claim, don't make
the mistake of asking him to prove it.*

BY J. T. McINTOSH

Illustrated by DICK FRANCIS

TROUBLE was brewing at Nick's. There was nothing surprising in that—it was payday at the mines, and miners are the same all over the Galaxy. In some places, however, they're more the same than others, and Cronfeld was easily the toughest of the so-called civilized worlds.

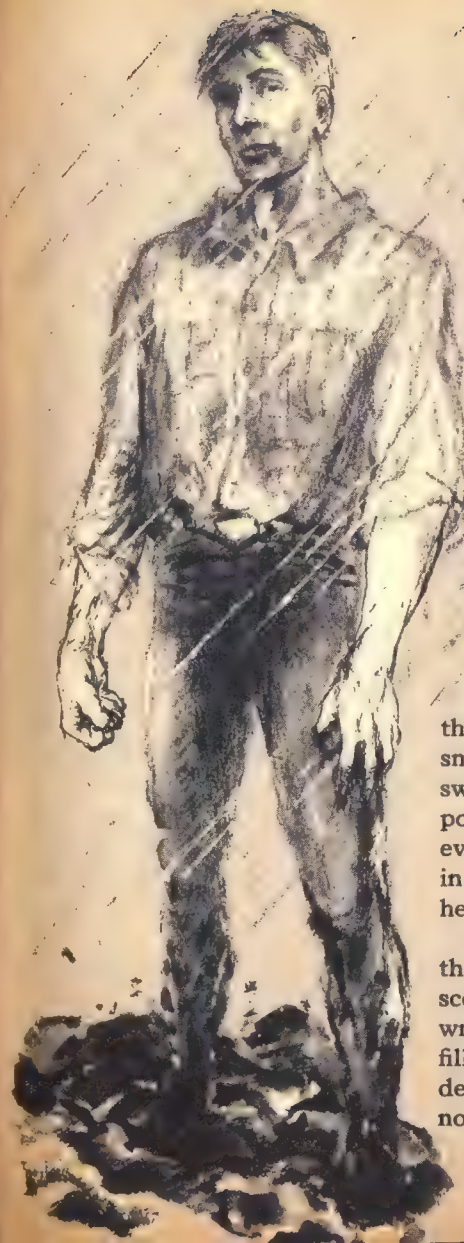
Ricky Chiotza, the big Blue Star foreman, was in the early stages of the slow burn which in due course would inevitably

reach the point of spontaneous combustion. Trouble was, somebody had stolen Ricky's girl. He didn't know who, any more than he knew precisely who his girl was, but if there was one thing sure it was that Ricky Chiotza was going to get the guy.

Occasionally Chiotza shot black looks at Sammy Talbot, who had taken a hundred dollars from him in a poker game the night before. Except when he was drunk, as he was now,

that slick so-and-so was too smart for his own good. Chiotza swore every week never to play poker with him again—and every week he joined the game in the hope of getting back what he'd lost the week before.

Most of the ladies—that was the polite name for them—had scented the raw passion that was writhing in the garish, smoke-filled air of Nick's, and had prudently retired to powder their noses. Some thirty big, sweating,



unsteady, check-shirted, womanless miners were left, drinking neat whisky like beer, talking in loud, belligerent tones and listening to nobody else.

Sammy Talbot, the smallest man in the room, was rapidly reaching the state of furious drunkenness when he would tell the world at the top of his voice that he could do anything. When that happened, the effects were predictable. Sammy's luck with cards didn't make him popular with the men who had been losing regularly to him for years. Nobody believed that he had any superhuman abilities, and it was quite true that with cards he hadn't—he just happened to be a good poker player.

Drunk, as he was now, Sammy wasn't so smart. Sammy was quite likely to pick a fight with Ricky Chiotza, who was three inches taller and thirty pounds heavier than Sammy. Afterward, someone would rustle up Cliff Burns from whatever high society function he happened to be honoring with his presence, and Cliff, after cursing for a minute or two, would come and scrape up what was left of Sammy.

OUTSIDE Nick's it rained as it could rain only in Cronfeld. There was no wind—there seldom was. Cronfeld had virtually no weather except blasting

heat, rain, fog and, occasionally, snow. The rain poured patiently out of the dark sky, keeping the paved road perpetually four inches deep in water despite the efficiency of the drainage—drainage on Cronfeld had to be efficient or there was no use messing with it—and elsewhere trying to prove, despite millions of years of experimental evidence to the contrary that silicon dust *would* eventually dissolve in water.

Across the street from Nick's was the Garden, the West End of the mining town. You couldn't be on the right or wrong side of the tracks on Cronfeld, there being no railroad. But you could be a miner or something else. If you were a miner, you lived in the shacks or the hostels, fought, drank, sweated, ate like a pig and died like a wolf, torn to pieces by the rest of the pack. If you weren't a miner, you lived in Garden City, wore expensive clothes or impractical clothes to prove you weren't a miner, and spent your whole life insisting vehemently that there really was cultured, educated society on Cronfeld.

There is no upper set quite so frenetically gay, quite so extravagant, quite so artificial, as a privileged class which exists side by side with an exceedingly underprivileged group. The vast

contrasts of the French Revolution, the Tsarist régime and the Great Depressions weren't curious, inexplicable accidents.

No more than two hundred yards from Nick's, Cliff Burns adjusted his already perfect white tie, smoothed his impeccable tails, and surveyed the scene in the Benjamin ballroom with carefully assumed boredom. There had been a mix-up and half the guests had thought it was a fancy dress ball and the other half hadn't. It didn't matter—everybody agreed that this only made it a better party than ever.

The floor and the walls were of glass, the drapes dull crimson. An enormous crystal staircase curved voluptuously into the ballroom itself, and in the center of the glass floor a fountain cascaded, lit by concealed colored lights. The guests were pale and antiseptically clean, for on a dirty, muddy world where it was easy to acquire a deep brown tan it was naturally a mark of quality to be spotlessly clean and pale as a white orchid. Everybody was having a wonderful time, and the gayest of all were the people who secretly wished they were in bed and asleep.

The orchestra was playing a Strauss waltz. Strauss himself had been buried four centuries

ago on a world 773 light-years away, but nobody thought there was anything odd in playing his music on Cronfeld. You could be cultured and still listen to Strauss, and he was a lot easier to listen to than Beethoven, Brahms, Mozart or any of that crowd.

A blonde in black tights flicked her whip at Cliff's white tie, laughing shrilly, but he hardly looked at her. He was looking for Shirley Benjamin.

He needn't have bothered. The daughter of the house could hardly be expected to make an ordinary, unheralded entrance. Abruptly the orchestra stopped playing *Voices of Spring*, went into *Lovely to Look At*, and Shirley slowly descended the crystal staircase, regally alone, to polite applause.

FROWNING, Cliff moved forward to meet her at the foot of the stairs. Before he could say anything, she giggled and said: "I know, Cliff. You're angry because I'm not wearing your ring. Don't be mean, Cliff. That would spoil it. Don't you see the idea? No earrings, necklace, ring, bangles—"

"I see the idea all right," Cliff growled.

She laughed again. "Oh, I get it. You don't want anybody to see me like this but you, is that

it? Go ahead, Cliff, be jealous. That's all right."

He choked back his annoyance with an effort. He simply couldn't afford to quarrel with Shirley. She represented his one chance of escape from Cronfeld.

"Well, if you aren't going to ask me to dance," she said, piqued, "I can easily find somebody else . . ."

The orchestra was playing a slow drag. He took her in his arms and they moved out on the floor. If he had dared he would have sent her back upstairs to put on more clothes. But there was too much at stake—and you didn't tell Shirley Benjamin what she could and couldn't do.

Mamma and Papa Benjamin were looking on dotingly. No hope of support there. In their eyes Shirley could do no wrong. Unwillingly Cliff admitted to himself that it was just as well that they felt like that, for if Shirley hadn't been allowed to do exactly as she chose there wouldn't have been much chance of Cliff Burns ever succeeding in becoming engaged to her.

Gradually Cliff's annoyance subsided. Every man in the room envied him, he knew, and probably most of them knew that Shirley wasn't going to close her bedroom door on him after the ball. Long ago, when he was

planning his campaign to marry Shirley and escape from Cronfeld, he had decided that Shirley was the kind of girl who would be easier to marry afterward if he'd seduced her first, who would be easier to hold if she thought she had to work to hold him.

Naturally he had never allowed her to suspect that he'd have married the sleaziest girl from Nick's if that would have gotten him off Cronfeld.

He was just beginning to enjoy himself when he felt a tug at his sleeve. "Excuse me," the butler murmured. "Phone call."

Cliff stepped away from Shirley with a muffled curse. Why couldn't Sammy keep out of trouble for just one night? He forced his lips to smile. "Excuse me, darling."

It was Bill Monkton, phoning from Nick's. Uptown and Downtown had only one thing in common—the telephone system. But even that wasn't as egalitarian as it might be. Every instrument in Garden City had a red light on it which lit up warningly whenever the call was from the Jungle. And if you didn't want to be soiled by even telephonic contact, you didn't need to take the call.

The red light was on now.

"Sammy's going to get hurt," Monkton whined. "Chiotza is spoiling for a fight, and any mo-

ment Sammy is going to oblige him. Chiotza will kill Sammy."

Monkton wasn't very bright, Cliff thought, if it had never occurred to him that nothing would suit Cliff better. But despite the trouble Sammy was always getting into and the number of fights he lost, Sammy never did get killed, and Cliff was getting impatient.

"What's the good of telling me that?" Cliff demanded. "I can't come over there and drag Sammy out of it, can I? Call again if anything happens."

HE hurried back to the ballroom. Shirley was on the bandstand, her supple torso writhing rhythmically in an exhibition that was five per cent dance and ninety-five per cent sex. Cliff pulled her down from the stand, not very gently. He was angry again. It offended his dignity that the girl he was going to marry should act like a tramp.

"That low-life pal of yours again, Cliff?" Shirley said. "What's he got on you?"

"We knew each other on Earth," Cliff said easily. It was a lie—he had met Sammy for the first time on Cronfeld.

They had barely started dancing again when Cliff was called to the phone once more. This time he didn't muffle his

curses. Shirley giggled and blew him a kiss.

"He ain't hurt bad," Monkton said over the phone. "You've seen him a lot worse."

"Where is he?"

"In the gutter outside Nick's."

Cliff cut the connection and called a taxi. It came right to the door, close against the canopy, so that he could step into it without getting wet. "Nick's," he snapped.

The cab splashed diagonally across the road and stopped beside a limp form face down in the gutter. "Lift him in," said Cliff.

"I can't do it alone," the cabbie complained. "I need help."

He got it, but not from Cliff. A slight figure dashed from the side door at Nick's, a figure in a shapeless raincoat. At first annoyed, for no particular reason, Cliff suddenly smiled. This girl, whoever she was, could see Sammy home, and he could go right back to the party.

Between them the taxi-driver and the girl hoisted Sammy into the back of the car and propped him in a corner. Cliff kept well into the opposite corner, hoping his immaculate clothes weren't going to be soiled.

"Get in," Cliff told the girl curtly.

She blinked, but obeyed.

Suddenly Sammy turned his head and saw Cliff. He tried to get up. "I'm not staying in the same room with that guy," he said indistinctly but vehemently.

"You're not in a room, you're in a taxi," the girl said soothingly.

"Susie . . . What are you doing here with this heel, Susie? Let me get at him and I'll—"

"You ought to be ashamed of yourself, Sammy. Every time you get into trouble, Mr. Burns always comes and gets you out of it."

Cliff was startled. Although he'd never seen this girl Susie before, apparently she knew all about him.

"He gets paid for it," Sammy muttered.

"Sammy!" Cliff exclaimed. "Watch what you're saying!"

"You're my keeper. You get paid to keep an eye on me. You wish I was dead, but any time I get in trouble you've got to haul me out in case I die and you're held responsible. But you're really only looking for a chance to finish off the job some time when you're absolutely certain the first guy is going to get blamed for the whole thing—"

Forgetting his concern over his clothes, Cliff brushed Susie aside and slapped Sammy hard on both cheeks. Instantly he found himself struggling with

the girl. And she was winning.

"Look," he gasped. "I've had enough of this. You — what's your name?—Susie, will you see that Sammy gets home?"

She stopped struggling, puzzled. She couldn't make out whether Cliff was Sammy's friend or not.

"Sure," she said. "Sure."

The taxi crossed the street again and Cliff got out. He paid the driver and stood back under the canopy of the Benjamin house. The car sloshed away, sending out bow waves like a speedboat.

SAMMY'S room at the miners' hostel was untidy but not dirty. There were signs that he wasn't just an ordinary miner—books, a water color or two, a chess game he was working through.

Such evidences of a not uncultured background weren't unknown among the miners. The only good reason to become a miner on Cronfeld was to escape the law, and usually men who chose this way of escape were quite unaware that the law was perfectly satisfied to know that they were there. Occasionally men escaped from jails and often men were released from jails. But nobody ever came back from the minefields of Cronfeld.

Once a miner, you were stuck

on Cronfeld for life. There was nothing to stop people from the Garden traveling on the space freighters which carried the more valuable ores back to the inner worlds. It was easier, however, to get through the eye of a needle than to make the short journey from the Jungle to the Garden. Money didn't help. The miners were reasonably well paid, and it was no secret that Sammy, the poker king, must have thousands stashed away somewhere. But money alone couldn't get him into the Garden. No social door had ever been more tightly bolted and barred than the door of the Garden against the Jungle.

The authorities on many worlds were well aware of this. Criminals and undesirables were often helped on their way, without having the faintest suspicion of the fact, by the police of the country or world they were leaving.

Susie found a rag and soaked it at the cracked sink.

"I c'n do anything," Sammy uttered.

"Sure you can," said Susie, working on his injuries, which weren't serious this time.

Susie wasn't as pretty as Shirley Benjamin. In fact, she wasn't pretty at all, although she had a passable figure. A girl didn't have to be pretty on a

world like Cronfeld. Merely to be young was enough, and Susie was about eighteen. She had nevertheless been one of Nick's girls for six years, which meant that in some kinds of experience she was as old as time.

"I c'n do anything," Sammy insisted, turning his head petulantly away from her. "If I liked, I could . . . Susie, I've told you before. They sent me here because . . . Look, Susie, I'm not a killer or a thief or a brute like the rest of them. I never did anything really bad—no more than you'd expect when a fellow can do anything he likes."

"Sure, honey," said Susie tenderly.

She had no other name but Susie. Having been sold to the proprietors of Nick's at the age of three months, and then boarded out with one of Nick's girls for twelve or thirteen years until she should become a commercial asset, Susie had naturally known very little tenderness in her life. Not that she had any complaints—people who have things tough right from birth rarely do have complaints. When she met Sammy, however, it had been like a door of a prison opening into a lovely, sunny valley.

Sammy wasn't much. He was always pitying himself, and getting drunk whenever he had a

chance, and playing the same old bombastic I-can-do-anything record whenever he got drunk. But Sammy was nice to her in a way no one had ever been before.

Sometimes she cried when she thought of it. Imagine anybody realizing she had feelings! And not merely realizing she had feelings, but respecting them.

Once he had tried to give her money, a lot of money. She hadn't counted it, but it seemed to Susie's astonished eyes to be more money than she had believed, to that moment, existed in all of Cronfeld.

"Go on, take it," he had said. "It's no good to me. I can't use it to get off Cronfeld. You might, if you went the right way about it."

But when he had seen that she was refusing the money because of finer feelings than he had credited her with, he apologized sincerely, treating her with such respect and courtesy that she felt ashamed. At the same time, womanlike, she loved him more for it.

IT WAS a pity that he got drunk. Susie had grown up with hard liquor, trained to make the men with her drink as much as possible, and Sammy was the only man she ever tried to stop drinking. Drunk, he was

like any man. Sober, there was something fine about Sammy.

"That Cliff Burns . . ." Sammy whispered, with loathing.

"Honey, I don't get it about you and him. Does he really get paid, like you said? Like Norma was paid to look after me?"

"I'm not supposed to talk about it."

"Sure, honey, but you keep talking about it all the same. You keep saying that you can do anything, but you're not supposed to, and you're not even supposed to talk about it, and Cliff Burns gets paid for looking after you, but you're not supposed to talk about that either."

Although when other people said such things Sammy flew into a blind rage, Susie's tone was so warm and sympathetic that he couldn't be angry.

"Maybe I should try to explain it to you, Susie. A guy's got to talk to somebody, sometime . . . I spent four years on a dead planet once. This planet hasn't even a name, but the race that used to live there called it Xyt. It was four years before I was picked up—"

"I know, honey," said Susie patiently. "You told me."

"I'm not supposed to tell anybody. More than that, I'm not supposed to do anything. That's why Cliff Burns is here. If I do anything, he's free to scramble

me. Then he can leave here. But if he scrambles me and can't prove I *did* anything, he'll be sent back—as a miner this time. I'm safe from Cliff so long as I don't—"

"Honey, you just don't make no sense."

His head ached. The raw whisky was still working on him. He knew, however, that even sober he'd be unable to make Susie believe what he said, and understand it. Susie was loyal and generous. She had a certain shrewdness which had once made him hope that there was something to work on in her dark head. He had discovered however, that she was completely lacking in imagination, and that her shrewdness was merely the cunning any determined animal develops in jungle conditions.

She couldn't understand anything outside her own experience, and in her experience people like Sammy and people like Cliff could never have anything in common. Just as miners never crossed the figurative tracks to the Garden, people from the Garden never sank to the miners' level. If the charity of their friends didn't keep them from disaster, they'd lie and cheat and steal to stay in the Garden—and if that failed, there was always suicide.

"If only you'd believe me, Susie," Sammy whispered, "it wouldn't be so bad. I can do anything, Susie—except control the encephalograph Cliff's got hidden somewhere. It would give me away. And if I make him show me where he keeps the scrambler and the encephalograph, it only lands me in deeper trouble. And it's no good killing Cliff. He makes two phone calls every morning at ten o'clock, and if he doesn't make them I'll be scrambled anyway—"

"Don't talk about killing, Sammy. Killing never did no one no good."

"I never wanted to kill anybody but Cliff. That's all. I hate his guts."

"That never did no one no good neither."

"Don't you hate anybody, Susie?"

She stared at him. "Me? Who would I hate?"

He said nothing. A few minutes later she saw he was asleep. Sighing, she took off her garish dance frock and lay down beside him. He was trembling as he always did when he slept. She knew about that. It was the Dream.

Poor Sammy. She loved him, pitied him, and admired him, all at once. But most of all she loved him.

SHIRLEY'S bedroom was like something out of the France of Louis Quinze. The bed was an enormous four-poster with silk curtains which could be drawn for privacy within privacy. The dressing table was almost as massive as the bed, with three huge mirrors in which she could see herself in triplicate—you couldn't have too much of a good thing—or examine the back of her head if she wanted to. There were big cut-glass jars of cosmetics and silver-backed hairbrushes. And there was Shirley, standing in front of the three mirrors and looking at herself with satisfaction.

She still wore her ball dress. For the moment she had forgotten Cliff, standing behind her, in her pleasure in her own beautiful body.

"Shirley," said Cliff, "I want to talk to you."

She pouted. It was hardly a compliment when a man admitted to her bedroom after the party was over wanted to talk.

Cliff realized his mistake at once. In a moment he was behind her, pulling her against him and gently stroking her. She began to writhe in anticipatory pleasure.

"There's nothing to talk about, Cliff," she whispered. "The passages are booked. We leave on the next ship, in two weeks'

time. Isn't that what you wanted?"

"So soon?" Cliff breathed.

"You've been trying to get me to fix it for so long . . . Daddy finally agreed this morning. I knew it would be a wonderful surprise for you, Cliff."

It was a wonderful surprise, but it was also a shock. Although he automatically went on caressing Shirley, Cliff had almost forgotten her existence. His thoughts were racing, and they weren't thoughts of Shirley Benjamin.

When he'd been sent to Cronfeld to keep an eye on Sammy Talbot, he had thanked his chief with heartfelt sincerity. It had been that or a jail sentence for his negligence in killing a girl prisoner. Banishment on full salary to a world with civilized society seemed, at the time, infinitely preferable to jail.

He had even admired, at the time, the chief's solution to the whole problem. The chief had made no secret of the fact that he wanted Sammy scrambled, but the court had shown unexpected clemency, as courts sometimes did. Neither Cliff nor the chief really believed the stories about Sammy Talbot, but that wasn't the point. Scrambled, Sammy could be released, could be forgotten. Unscrambled, Sammy had to be watched. There



was no doubt that Sammy could do *something*.

After three years, Cliff had changed his mind. The court's merciful ruling—that Sammy was not to be scrambled unless or until he used his trick again—meant that Cliff was tied up on Cronfeld, that he had to employ a couple of assistants there, that every ship from Cronfeld had to be carefully checked . . . in short, the court's ruling meant that instead of the Sammy Talbot case being firmly closed when he was caught, as it should have been, it stayed open until Sammy obligingly got himself killed or gave Cliff reasonable grounds for scrambling him.

In three years, Sammy had done neither.

Cliff wasn't worried about anything Sammy might do. Sammy was such a whining, boasting, irritable, ineffectual character that it was impossible to be worried about anything he might do. Nevertheless, to be on the safe side, Cliff had always acted as if Sammy really was dangerous.

He had two auxiliaries, Monkton, who worked beside Sammy, ate with him and drank with him, and Keig, who lived in the Garden and had never seen Sammy. Each of them had a detector and a preset scrambler unit, and their job was to use

the latter if the former ever showed anything.

Sammy might nullify Monkton, but he could hardly cancel out Keig, of whose existence he knew nothing. Sammy was hog-tied and he knew it.

Cliff trusted Monkton and Keig for the excellent reason that they didn't dare cross him and they knew it.

Lieutenant Gibson of the Cronfeld police also knew something about Sammy and about Cliff's responsibility for him—not much, but something.

In fact, scores of people were involved in the safety measures taken against the whining, ineffectual Sammy—and all because a court on Earth had said, "No, don't scramble him yet."

Naturally Cliff had thought often enough about scrambling Sammy and going back home with a convincing explanation. Unfortunately, he knew that he wasn't going to be convincing enough. Once Sammy Talbot was no longer a problem, Cliff could go back to Earth—that had been the agreement. But Cliff had been assured that unless he returned with ironclad proof that he'd had to scramble Sammy, he would be on the next ship back to Cronfeld—and this time he wouldn't be residing in the Garden.

"I thought you'd be pleased,"

Shirley said. "Daddy didn't want to let me go. If you'd rather stay here, I can soon—"

"Of course I'm pleased," said Cliff. "I'm speechless."

"Well, you don't have to talk," said Shirley. "There are other ways of expressing your appreciation."

Idly Cliff wondered how a girl in Shirley's position could be so insecure that she needed so much reassurance. There were rumors that she had been an unattractive child, strange as that seemed now—did that explain everything?

In any case, there was no doubt about what he had to do now.

It was surprising how being compelled to do a thing turned what should have been a great pleasure into rather a bore.

THE DREAM was always the same. First, Sammy lived through the crash again. Everybody but himself had been killed instantly.

It had been one of those hyperspace disasters which no spaceman ever thought about, just as an airplane pilot with no parachute didn't think about crack-up in mid-air. There was no percentage in it. If you were spewed out of hyperspace, your chance of rescue was no chance—not one in a million, not one

in any number of millions—not any.

Nobody was going to come out of a hyperspace vector voluntarily, that was for sure. The hyperspace routes were so carefully established that you didn't work them out any more; you fed the right card into the ship's computer. There was no card for the world on which Sammy's ship crashed. The chance of any other Terran ship arriving there was like the chance of a collision between the only car on the American continent and the only car in Australia.

Sammy, who had been an ordinary spaceman then, survived the crash because he was thrown against a padded bulkhead which broke loose and careened on through the ship, to be stopped gradually by an aluminum water tank which acted as a giant hydraulic brake. Not unexpectedly, nobody else was as fortunate.

He found himself on a cold desert world which had obviously once been hot, a world with the right kind of air but not quite enough of it, and once he fully comprehended his situation he honestly wished there had been no survivors.

The ship was less than a wreck; it wasn't even a shelter. And there was no life, no water, in the desert in which it lay.

Since his death from lack of air, food and water was only a matter of time, Sammy's decision to make for the mountains he could see to the north was not unreasonable.

He reached the mountains fairly easily and found that they enclosed a vast valley at the bottom of which there was enough trapped air for his needs. So he wasn't going to die of lack of air, after all.

There was also a stream whose waters he found he could drink without ill effects. He wasn't going to die of thirst, either.

Although there was an abundance of small animals little larger than rats but much less active, it seemed for some time that this fact wasn't going to help him much. Every time he killed and ate one of them, he was violently sick. He eventually discovered, however, that it was the mixture of Terran and native food that his stomach couldn't stand. It could and did adapt to the animal life of Xyt. So neither was he going to die of hunger.

He still didn't look on his future on Xyt with any enthusiasm—not even when he found the ruins.

For two years the ruins in the valley and the things he found in them meant no more to Sam-

my than something to keep him sane. It transpired that the Xytians had used a kind of paper which was less destructible than their stone and metal buildings, and which the small animals couldn't eat. Consequently Xytian literature survived complete when even their strongest buildings and machines had collapsed in rust and ruin.

At the end of two years Sammy was reading Xytian literature voraciously. Even children's primers had survived, and consequently learning the language presented no great problem to a man with unlimited time on his hands. He would never be able to speak it, of course; but since there would never be anyone, Xytian or human, to speak it to, this hardly seemed to matter.

The Xytians must have been very nearly human mentally, although physically there had been few resemblances. Xytian anecdotes made sense to Sammy, even if they never managed to make him laugh. He didn't do much laughing on Xyt.

At the end of three years Sammy was beginning to understand *Power*. *Power* was the nearest equivalent to the Xytian word. *Power* had been outlawed among the Xytians, and yet it had killed them off in the end. Presumably, like most outlawed

things, it was used by outlaws.

Power was a means of doing anything—or, rather, of making anybody else do anything. It was partly telepathic, but mainly a technique for control of another person through the unconscious. In other words, it wasn't very far removed from hypnotism.

A human being given a post-hypnotic command to do something, no matter how unreasonable, will dream up a reason for doing it which he is convinced is the real reason. Xytian *Power* went several stages further. In the first place, since it was telepathic, words weren't needed. In the second place, since the so-called unconscious was always conscious, even in sleep, it was always accessible. Third, the unconscious had no natural defenses—you could invade another person's unconscious without having to get past it. Fourth, once you'd done what you wanted to do in the victim's unconscious, his own conscious was on your side, working for you.

At this point in his researches Sammy was still merely reading for something to do. There wasn't much direct instruction about *Power* in Xytian literature, naturally enough, since it was an illegal technique. But there was plenty about telepathy, which was perfectly legal.

And one day when his studies

of Xytian mental science were sufficiently advanced, Sammy read a paper explaining how telepathy worked through hyperspace.

The Xytians knew nothing of space travel. They knew nothing of hyperspace as an extension of a point-to-point flight, a way of getting from A to B without having to traverse all the distance between A and B.

Being a telepathic race, they knew hyperspace only as a medium for telepathic communication. They had been in telepathic communication with at least a score of intelligent races in the universe. Not Earthmen—at that time the ancestors of Earthmen had been swimming about in the sea.

It was then that Sammy had his first wild hope of rescue. Could he learn telepathy? Could he learn *Power*?

Could he make Terrans in Terran ships come to Xyt for him?

SAMMY groaned and turned over. But the noise which had disturbed him went on.

He sat up, blinding pain in his temples. Susie was asleep beside him, so deeply asleep that the noise of the telephone out in the hall didn't bother her.

Still drunk, Sammy climbed out of bed and staggered into

the hall. Vaguely wondering why the ringing had disturbed nobody else, he remembered that Smith and Proctor, who had the two nearest rooms, had both been with girls at Nick's and probably wouldn't be back until morning.

"Huzza?" he said into the phone.

Cliff, too, had left a woman sleeping. Shirley, like Susie, was a very deep sleeper, and that was what had given Cliff his idea. The evidence of a mistress wasn't always enough for the police, but on Cronfeld the testimony of a Benjamin—if it should happen to be asked—was the strongest, safest, most absolute evidence there was.

Some girls would object to giving testimony like that. But not Shirley. Shirley was quite open about her relations with Cliff. She boasted about them, as if she'd been the ugliest girl on Cronfeld instead of one of the prettiest.

She would say he had been with her all night—if necessary.

"Sammy, this is Cliff. No, don't hang up — this is vital. Sammy, you and I both want to get away from Cronfeld. Well, has it ever occurred to you that if we work together, we can do it—both of us?"

Sammy was drunker than he had been when he had fallen

asleep. Yet Cliff's words made sense. Sure, he hated Cliff Burns, his keeper—his warden. Nevertheless, he had thought long ago, apparently long before the idea had occurred to Cliff, that if the two of them worked together there ought to be a way in which they could both get what they wanted.

"Listen, Sammy, is Susie still with you?"

Sammy looked around owl-ishly. There was no sign of Susie. "No," he said. "She isn't here."

"Okay. Sammy, I've got to see you right away. Up by Ricky Chiotza's place. At the back, where—"

"I'm not going near that guy," said Sammy emphatically. "Had a fight with him. Bastard hit me with a bottle."

Cliff had guessed as much. "It's just a place to meet, Sammy," he said. "We're not going to see Chiotza. We're just going to talk in that old shed behind his house—to be out of the rain."

Sammy thought tortuously. The shed behind Chiotza's house. "Okay," he said, and hung up.

He looked down. He was stark naked. Well, that was all right—no sense in getting his clothes wet.

Why, he wondered vaguely, was he going to the shed behind Chiotza's? To meet Cliff. Cliff

had an idea to get them both off Cronfeld. Might as well hear it. Could always say no. Would say no, unless Susie could come too.

He staggered downstairs and out at the back door. The rain still poured steadily. Sammy didn't mind—it felt good on his skin.

Chiotza's house was only a few hundred yards away. Sammy skirted it, went around behind it, pushed open the rickety door of the old shed.

Where was that Cliff Burns?

It had taken Sammy perhaps five minutes to reach the shed from the telephone in the hostel. Nevertheless, it seemed like a rank discourtesy that Cliff shouldn't be waiting for him.

He sat down on the stone floor, finding a piece of sacking to insulate his bare bottom from the concrete. *Mus' watch this Cliff*, he thought. *Capable of anything, that man. Mus' be on my guard.*

On his guard, waiting for Cliff, Sammy fell asleep.

ON the face of it, Sammy's undertaking had been a pretty wild one. The Xytians had been a telepathic race. The very nature of their literature showed this clearly. What was written down, for the most part, was what minds were liable to forget, what one mind couldn't

easily pass to another mind, what was needed to supplement mental communication.

Humans weren't a telepathic race. It had been shown that they weren't telepathically blind, deaf and dumb, that was all.

But Sammy didn't care how fantastic his plan was. It was far more realistic, certainly, than waiting hopefully for someone to come and rescue him. And he still dreamed of rescue.

Soon he began to realize that his efforts weren't so fantastic after all. What was personality, what was personal magnetism, but *Power*? Wasn't it possible that even if a human conscious mind couldn't reach out and touch another human conscious mind, it might be able to reach a human unconscious? Wasn't there plenty of evidence in human relations that it could?

And the Xytians had not merely used telepathy, but also studied it, developed it, catalogued it. There were exercises for Xytian children. Exercises in extending the consciousness. Exercises in remembering-seeing-projection. Exercises in thought-direction.

One day Sammy found he could control the little animals which had been his staple diet for three years. After that he hated eating them. It seemed inhuman to bring them to him to

be killed and make them stand while he killed them. Yet when he could do that, did it make sense to go out and try to stun them with stones, as he'd been doing for years?

Power was a way of stabbing direct at the unconscious. All animals had an unconscious, and therefore all animals could be controlled by someone who had the Xytian *Power*.

It was doubtful whether Sammy, or anyone else, could have developed the faculty without such a stimulus. For Sammy, learning to operate *Power*, or not learning, was a matter of life or death.

He learned. Or he thought he learned. How could he tell? The fact that he could control the Xytian creatures proved nothing beyond the fact that he had a stronger intellect than they, which was pretty obvious anyway. *They* could be the telepaths.

Anyway, he began broadcasting his commands. They should, if everything went according to plan, be going out by hyperspace. They should reach Earth, or more particularly, any Terran ship in space. They should slide direct into the unconscious minds of Terran spacemen, who should then seek them to their source, not knowing why they really did so, but inventing for

their own satisfaction perfectly good reasons why they should ...

The ship arrived four years and ten days after Sammy's ship was wrecked. It was a survey ship, and the members of the crew were all convinced that they had been ordered to survey this section of space.

For a long time after that Sammy didn't attempt to use *Power* again. It could have been a coincidence that the survey ship came to Xyt. In due course he would know for sure. In any case, although the survey team examined and photographed the Xytian remains, Sammy cautiously refrained from showing them any Xytian literature. It naturally didn't occur to them that any could have survived.

BACK on Earth, Sammy continued to be cautious for a while. But why should he work if people could be made to want to help him, support him, love him?

Any doubt that he possessed *Power* was soon at an end. He could do anything he wanted—or make others do anything he wanted.

With certain exceptions. About one person in a hundred was somehow blocked to him. *Power* just didn't work with these rare individuals.

It didn't seem to matter. Sam-

my never found it vitally necessary to have any truck with these stubborn, intractable people—invariably men and women who were resistant to hypnosis, too.

For nearly a year Earth paid him back for the loneliness he had suffered on Xyt. Earth reimbursed him willingly, gladly. People loved Sammy Talbot and didn't know why they loved him. It didn't matter—they could, and did, invent plenty of reasons.

On the whole, Sammy wasn't too ambitious or too cruel. That was what saved him later. He merely took what he wanted, making others want to give. When he tired of anything or anyone, he always neatly rounded off the incident in a way which gave pain to no one.

He did some good, too. Sammy could touch the unconscious direct. And when people were miserable, or when people were insane, it was because of something wrong in the unconscious, something which Sammy could set right.

But he did take a lot ...

The police must have done a good job. Of course, they had the evidence of those rare individuals whom Sammy couldn't touch. They even used a couple of them as assistants. All the same, it must have been quite a

job, tracing everything back to Sammy and believing the incredible. It would have been impossible if Sammy had actually been able to read minds. But he couldn't. He could merely control other people's unconscious minds.

Another thing that helped the cops was the fact, unknown to Sammy, that when he used *Power*, encephalographs for miles around went mad. Indeed, before they took him in they had developed a small, simple detector which was nothing like as complicated as an encephalograph but which detected *Power* activity at a range of several miles.

After that, Sammy was hooked.

WHILE he was drugged, a police surgeon inserted a tiny instrument in a cavity in his skull. From then on Sammy could be scrambled at any time, at any distance up to a hundred miles.

And so Sammy, with his magnificent *Power*, was as helpless as Gulliver. There were people, admittedly rare people, whom he couldn't affect. There was a *Power* detector. And he could be scrambled without even being caught.

For a while Sammy became a secret-secret-secret agent work-

ing for the government. But the *Power* which only Sammy Talbot had was so awful, so dangerous, that it was decided he couldn't be allowed to keep it. After the way he carried out his assignments, who would feel safe with him unscrambled?

But there justice stepped in, good old kindly, fatuous, bumbling human justice. Sammy couldn't be sentenced without a trial. So he had a trial—a secret trial, but not a rigged one.

The court ruled that Sammy had not done anything bad enough to be scrambled for it.

So Sammy was sent to Cronfeld, almost a free man, with Cliff Burns to watch over him. Cliff was not, unfortunately, one of the rare individuals immune to Sammy. None of those, as it happened, could be compelled to go to Cronfeld. Cliff could.

That Sammy should be exiled to Cronfeld wasn't quite what justice had intended. It certainly wasn't what the kindly, humane court which wouldn't give permission for scrambling had intended.

It was a police decision and it wasn't stupid. It wasn't nearly as stupid as it looked.

Neither Sammy nor Cliff knew the points which had been considered by Cliff's chief when the situation was set up. They were:

1. Sammy would probably use *Power* and be scrambled. If that didn't happen,

2. Cliff would probably scramble Sammy anyway, claiming he had used *Power*. Or

3. Cliff would murder Sammy in the hope of gaining his freedom. That would be a pity, of course; but it would certainly be the end of an awkward moral, legal and sociological problem.

4. In any case, every human being who left Cronfeld would be screened at short, medium and long range to make sure he couldn't possibly be Sammy Talbot.

ALTHOUGH Cliff didn't entirely believe in Sammy's alleged superhuman abilities, he reviewed what he had heard of them as he approached the hut, just in case.

It was known that Sammy wasn't a telepath. That was pretty obvious anyway—you couldn't very well drug a telepath and take him prisoner.

So all Cliff had to do was make sure that he got Sammy before Sammy could do anything. Cliff couldn't use a gun, unfortunately; the miners had

no guns. It would have to be a knife—a knife like any miner's knife. Not in the heart, for men lived and used their brains after being stabbed in the heart. It would have to be in the brain. If Sammy's heart went on beating, it wouldn't matter. He couldn't do any superhuman tricks with his heart.

Chiotza and Sammy had fought only a few hours ago. And Susie hadn't stayed with Sammy at the hostel—there was no reason why Sammy should lie about that. When Sammy was found dead behind Chiotza's house, what would everybody think?

Well, what did it matter what they thought? Nobody cared much about the death of a miner after a drinking session. Cliff Burns, if anybody cared to check, would have an alibi. Besides, Cliff was Sammy's friend; everybody knew that. Most of all, would anybody from the Garden be crazy enough to venture into the Jungle at night?

Cliff exulted. Once Sammy was dead, he was safe, and he knew it. The Cronfeld police, who never meddled much with killings in the Jungle, would probably never even consider him as a suspect. He would marry Shirley and go and live on a decent world. And Cliff wouldn't have anything to fear

from his chief, who would have the Cronfeld police's report on Sammy's death.

Cliff exulted in his cleverness, but he wasn't quite clever enough to realize that what he was doing now had been planned long ago, on Earth.

He moved forward silently and pushed open the door of the hut. In the gloom he could make out Sammy, sitting down against the wall, asleep, naked.

The poor drunken sot. He *wanted* to be killed.

Cliff swung his knife in a short arc terminating at Sammy's right eye.

Warned by a sense which had nothing to do with *Power*, Sammy opened both eyes. He hadn't time to move, hadn't even time to think.

Cliff pulled his hand back and savagely hacked his own throat, almost severing his head from his shoulders. He pitched on the floor a fraction of a second after a stream of his own gushing blood.

Sammy got up unsteadily. He was suddenly completely sober. He knew instantly what this meant. He had always known what it would mean when he used *Power* again.

In that moment Sammy became a different person, very different from the weak, drunken, hopeless braggart he had been



as a Cronfeld miner. Suddenly he was more like the desperate but patient man who had deciphered the Xytian manuscripts.

You couldn't have a gift like that, keep it bottled up inside you and live a normal, useful life. Having *Power* and not using it was like sitting down for the last time, refusing to use your perfectly good legs ever again. You became a weeping, moaning, whining, self-pitying wreck of a man when you didn't do what you could do.

But now they would get him and he'd be scrambled. There was no doubt about that. Already, somewhere, a tiny *Power* detector, a tiny Sammy Talbot detector, had jumped and made a permanent record. The suspended sentence on Sammy Talbot was now automatically confirmed, three years later.

SAMMY left Cliff's body where it lay and padded through the incessant rain like a pale ghost. It was about two o'clock in the morning. He probably had eight hours, until ten. Perhaps less, certainly no longer.

At the hostel he went first to the strongbox in the cellar. He didn't count the money he took from it. He didn't have to. Poker was a lucrative profession among miners who played boldly, ag-

gressively, but not skillfully. There was nearly twenty thousand dollars in his hands.

Cautiously, making sure he wasn't seen, he went back to his room. Susie was still asleep, which was just as well.

First he did the superficial things. Susie could be pretty, and since nothing Sammy did would make any difference now, Susie might as well be pretty.

The human brain can control far more than it believes it can control. Sammy couldn't make Susie look much different now, but he could make her look quite a bit different in a few weeks' time.

He changed the pattern of Susie's physical supply lines. The changes he made were small, apparently insignificant, hardly worth bothering about. Yet, as a result of them, Susie's slightly bulbous nose would gradually slim away until it was small and straight. Her slightly heavy chin would become lean and smooth. Her skin would become clearer, all over her body, and she would lose a little fat around her hips.

More important than these things was the change he made in Susie's physical balance. People are recognized by their friends more by the set of their heads, the way they walk, the way they sit in a chair, the way

they hold themselves, than by their facial features. A good figure depends less on shape than on bearing.

Susie had started with good teeth and a passable figure. Sammy made her a pretty girl with a figure a showgirl could be proud of. At least, that was what she would be in perhaps three weeks. Even now her walk, her bearing would be so different that nobody who didn't look closely at her face would recognize Susie. And in three weeks she wouldn't even resemble Susie.

Strangely enough, what Sammy did next was easier for him. He stimulated areas in Susie's brain which had previously been dormant. He sent carefully calculated charges of mental impulses along the channels she normally did use. He stimulated tag-ends of talent and potential which had never before been touched.

He couldn't make Susie a genius even if he wanted to, and he didn't. Geniuses with too much emotion never made much out of life. And Susie had a lot of emotion in her, good, generous emotion. Sammy didn't want to destroy the best of Susie.

She opened her eyes when he was done, and even Sammy was startled at the immediate change. For now they were fine,

intelligent eyes. She was changed.

Rapidly he told her about Cliff, explained everything. She understood all he said at once, believed it all at once. When you actually experience a miracle, you don't have to waste time marveling at it.

"But you, Sammy," she said urgently. "What's going to happen to you?"

"I'll be scrambled," he said simply.

EVEN in her horror there was some relief. "They won't burn you for killing Cliff?"

Sammy smiled. "I didn't kill Cliff."

"But you just said—"

"The police have a machine which traces and establishes nerve patterns, Susie. When Cliff is found, the knife will still be in his hand. The cops will check his arm and find he cut his own throat."

"But you made him . . . I see. Your gift, this Power isn't in the book, is that it? They won't be able to charge you with a crime that doesn't exist?"

He nodded. "Anyway, I don't think they will. They'll scramble me and let it go at that. Probably at ten o'clock tomorrow. A daily check is made on the detector then."

"Sammy, isn't there any way you can escape? Couldn't you—"

"For days or weeks, perhaps. But there are men and women here, as well as on Earth, who are immune to me, Susie. I'd lose out in the end—inevitably. And I might have more to face than scrambling."

"Sammy, I love you. You know that. And you've made me into a girl you could love. Together, we—"

"We haven't time to talk about that, Susie. What's your favorite name? You can't be Susie any more."

"What do you mean?"

"Susie, I haven't time to argue. What's your favorite girl's name?"

"I once read a book. The heroine was called Amanda Randolph. I thought that was a lovely name."

"Fine, Miss Randolph — or may I call you Amanda? Now put your clothes on. We're going somewhere."

She didn't ask any more questions. The new Susie was as patient as the old. In character she hadn't changed—only in capacity.

She didn't seem to notice the difference in herself as they dressed, but Sammy noticed. She stood straighter now, with her chin up and her shoulders back. As a result her bust tilted higher, her waist was slimmer and her stomach flatter. Sammy was sat-

isfied with the preliminary signs of the transformation he had wrought. This wasn't Susie. This was Amanda.

She would even speak better. Of course, he hadn't been able to extend her very limited vocabulary, but she'd do that herself, very rapidly. And she couldn't help expressing herself better, even with the words she knew now.

Amanda. In the recesses of his mind, he called her Galatea.

THEY left the hostel, walked back to Nick's—closed and silent now, although the upstairs lights were on—and crossed the street to Garden City.

Susie hung back. "You're not going to—"

"I'm not going to do anything very bad, Susie. And I'm going to do one good thing. I'm going to make Cliff's girl happier without Cliff than she ever was with him."

He rang the bell of the Benjamin house. When at last the butler came, he ushered Sammy and Susie in as if he'd been expecting them.

Down the wide, silent staircase came three people, belting dressing gowns about them. First was Mrs. Benjamin, small and plump. Then Mr. Benjamin, tall, gray-haired, blinking. Finally Shirley, tousled, sleepy.

"Cliff is dead," Sammy told them without preliminaries. "But you don't mind that, do you?" The question was addressed to Shirley, who hadn't changed expression on being told of Cliff's death.

"No," said Shirley mechanically. "I didn't love him."

"Why did you think you did?"

"He wanted me."

"You have to love anybody who wants you?"

"Yes. Nobody ever wanted me."

"Is that true, Mrs. Benjamin?"

The three Benjamins were like sleepwalkers. Sammy was holding them in a kind of trance in which they had no choice but to tell the truth, the real truth, the underlying truth. It was similar to questioning under sodium pentothal but deeper, much deeper.

"Yes, it's true," said Mrs. Benjamin in a dull tone similar to Shirley's. "The doctors told me I'd die if the child was born."

"Why was Shirley born, then?"

"A specialist was to come and operate. He didn't come. The other doctors wouldn't perform the operation. Shirley was born. I nearly died, but after a year I recovered."

"And you still didn't want Shirley?"

"She had caused me so much pain . . ."

"Did your feelings change, Mrs. Benjamin?"

The woman sighed. "Of course. Could I go on hating my own daughter?"

Sammy turned back to Shirley. "You had to love anybody who wanted you, because your parents didn't want you. But later they loved you."

"Later they loved me," said Shirley blankly.

"They love you now. There's no need to love a man just because he says he wants you."

"No need any more," Shirley repeated.

Sammy lifted the trance slowly, gradually. "No need any more!" said Shirley joyfully, and turned to hug her mother.

AS Sammy knew from experience, this method worked. It was time to turn to his next aim.

"This is your friend Amanda, Shirley," he said.

"No, Sammy, no!" Susie exclaimed.

"My friend Amanda," said Shirley happily.

"She's staying with you. She's—"

"Sammy," said Susie urgently, pulling at his arm. "This isn't right. It's like stealing. I can see what you're trying to do, and I know you're doing it for me, but—"

"You're going to help Shirley,"

Sammy said quietly. "She's got to rebuild her life. She can do it if a girl like you is around to help her, Amanda."

"But I'm from the Jungle, and—"

"Stay in this house for three weeks and I promise you that when you go out, nobody will know you. You're Amanda Randolph. I'm going to leave you here and go over to Nick's to kill off Susie. She died yesterday and was buried the same day."

"Sammy, I can't stay here. It won't work. You can make these people believe I'm Shirley's friend and that I've never been in the Jungle in my life, but I can't live on them for the rest of my life. I can't—"

"Of course you can't." He gave her an envelope. "That won't keep you forever, but it's enough to silence questions, that and the fact that you're Shirley's friend. You came from somewhere in the south. You like the Garden and you're going to stay. Twenty thousand dollars is a pretty good introduction to society."

"I can't take it."

"Don't let's go into that again. What good is it to me?"

"Sammy, you can't get away with all this."

"Of course not," he said wryly. "I told you, remember?"

"But, Sammy, if you . . ." She stopped. There was nothing she

could suggest to him, nothing he could do.

Sammy turned back to the Benjamins. "Amanda Randolph has been Shirley's friend for a long time. She isn't seeing anybody just now because she's had an operation on her face, and she'll change during the next few weeks. Her parents are dead and she doesn't know anybody in town but Shirley. In a month or so you'll help her to get a job in the Garden, won't you?"

"Of course."

Sammy took a last look at them. When people *knew* a thing, loose ends didn't bother them. Shirley was radiant because she knew, knew beyond argument, that she wasn't unloved after all. Although it would take her many weeks to rethink her life, reassess everything that had ever happened to her, she'd be able to do it in the end, with the help of a generous, sympathetic friend like—like Amanda. Amanda was doubtful, bewildered, but soon she would respond to these people and flower in the easier life of the Garden.

Holding them for a moment, he ducked out into the street, out of their lives.

THE rain had stopped. It was easy to find and rouse a few of the miners, convincing them

absolutely that Susie had died suddenly the day before and had been buried. It wasn't so easy when he went to the police. Here he had to do a much more careful, subtle job, for later these men would know about Cliff Burns' suicide and that Sammy Talbot had been scrambled for using a strange, secret *Power* over men. No doubt there would be an attempt later to find out just what Sammy had actually done.

After he had finished his calls—which hadn't been made at all, for no one would remember them—there was nothing for him to do but return to the hostel.

As he made his way there, he thought without regret of the events of the last few hours. Human beings shouldn't have this *Power*, obviously, and he bore nobody any malice for what was going to happen to him. His life and personality weren't so remarkable that he had any real excuse for wanting to preserve them. Being a man, he did want to preserve them. But he was content—as content as any man could be knowing he was going to be scrambled in the next few hours.

He didn't reach the hostel. Suddenly he felt an intense pain in his head and knew at once what it meant.

Pitching forward in the mud, he lay still.

"IT'S all I could collect," said Sergeant Teiger, dropping two typewritten sheets on Lieutenant Gibson's desk. "Doesn't amount to much, but I'd sure appreciate it if you can make it do for your report to Earth. Snooping around in the Jungle asking questions isn't the healthiest occupation I know."

Gibson lit his pipe before picking up the sheets. "Party at Benjamins' broke up around twelve, Cliff Burns left about one," he mused. "Found next morning in shed behind Ricky Chiotza's place, throat cut, undoubtedly suicide. Chiotza had fight with Sammy Talbot earlier in evening, taxi-driver says Burns picked up Talbot and girl, drove Burns back to Benjamins', Talbot and girl to hostel in Jungle. Girl untraced . . . Talbot's girl, Susie, died earlier same day . . ."

He looked up. "Bill, this isn't a report. It's a dog's breakfast." "I know, Lieutenant. I can't help it."

"Hell, all this was three weeks ago. Surely by this time—"

"Look, if that guy Keig hadn't pressed the button the moment he woke up and saw Talbot had been up to something, we might have made some sense out of this. Sure, those were his instruc-

tions, and now we've got to pat Keig and Monkton on the back and let them go on the next ship, though we know Monkton at least is a crook—"

"Relax, Bill," said Gibson. "If Talbot was a mutant or something, naturally the affair got tangled at the end. I must say the whole thing leaves a bad taste—poor devil gets sent out to the mines here with Burns, Keig and Monkton waiting for him to make a false move so that they could slap him down. Okay, Bill, I'll do what I can with this. It isn't our business, anyway. If the Earth authorities want to know what really happened, they can come here and try to find out."

Teiger went out. Gibson started to write his report.

Teiger came back. "Dame wants to see you about Talbot."

"What kind of dame?"

"Your type. My type. Anybody's type."

"Okay, show her in."

"I thought you'd say that."

The girl who came into Gibson's office was no Helen of Troy, but nobody who found her on his line would throw her back. Her face was lean and attractive, and she held herself like a queen.

Gibson let his appreciation show. He came forward to meet her. "I'm Lieutenant Gibson," he

said warmly, taking her hand. She smiled. "Amanda Randolph."

"You knew Sammy Talbot, Miss Randolph?"

"How would I know a miner?" How would she, indeed? That was what had interested Gibson. Her expensive gray silk dress showed that she wouldn't know anything about the Jungle or its inhabitants.

"Then what is your interest in him?"

"I'm interested in psychology, Lieutenant Gibson, and I have a lot of time on my hands. Can anything be done for anyone like Talbot?"

"Oh, sure. In about ten years he'll be more or less normal."

"Where is he now?"

"At the hospital. When a scrambling sentence is carried out, the prisoner becomes a state charge."

"Could I go and see him? I've read about scrambling and I'd like to see the results."

"Frankly, Miss Randolph, I don't want to have any hand in turning a poor guy like that into a sort of sideshow."

"I don't mean it like that, lieutenant. I said I had a lot of time on my hands. Perhaps I could help with Talbot. I don't suppose he gets much attention at the hospital."

"I guess you're right at that,"

Gibson sighed. "Okay, if you go over to the hospital I'll call them right now and tell them it's all right."

"Thank you, Lieutenant." Amanda Randolph stood up. "Tell me, is he a prisoner?"

"Prisoner? Hell, no. His sentence was carried out. He's being kept at the hospital because he couldn't live a normal life, that's all."

"Thank you, Lieutenant," Amanda said again.

HALF an hour later, a white-coated doctor said: "Sure, go in. He's not dangerous."

"Is he getting any treatment?"

"Well, Miss Randolph, you know how it is. Cases like that don't need treatment; they need re-education. It would make sense to send him to school with the five-year-olds, in about two years or so when he's learned to talk."

"Suppose I came every day?"

"That would be fine of you, Miss Randolph. But you'd better see him first and see if you still want to."

"Doctor, let me put a hypothetical case. Suppose someone married him and took him out of here—suppose his wife was with him all the time, except when she had to work—couldn't he be, well, normal in a fairly short time?"

The doctor smiled ruefully. "You said hypothetical, Miss Randolph. If there was some woman who had loved the guy before—it would have to be before, for there's nothing left now for any woman to love—she might make him into something resembling a human being in a few months. But it'll be years before he can talk like an adult, and read, and count, and build up the background of general knowledge we all have . . . Look, you'd better see him before you consider any more hypothetical questions, Miss Randolph."

Amanda thanked him and pushed open the door.

Sammy lay in bed staring at the ceiling. He looked around as Amanda came in and sat down beside the bed.

"Hello, Sammy," said Amanda quietly.

His face was as clear and empty as a child's. The mind behind it was even emptier.

Amanda sighed. She had endless patience and it was clearly going to be needed.

"Ssssss," she said.

"Ith?" Sammy inquired.

"Ssssss."

"Iss."

She let pleasure show in her face, and Sammy responded to it with a cackle. "Iss!" he crowed. "Iss! Iss! Iss!"

— J. T. McINTOSH



GALAXY'S 5 Star Shelf

A FINE AND PRIVATE PLACE by Peter S. Beagle.
Viking Press, N. Y., \$3.95

THE ESCAPE from reality of Mr. Rebeck, the story's hero, is only one step removed from death. In fact, he has lived hermit-like in a mausoleum in the Yorkchester (a N.Y.C. apartment house project) cemetery for twenty years, tended and provisioned by a loyal but bellicosely talkative raven.

"The raven puffed for breath. 'Bernard Baruch eats corn flakes but you have to have baloney.'"

"Did you have trouble bringing it?"

"'Damn near ruptured myself,' the raven grunted."

There are also a wonderfully brash Bronx housewife who stumbles across Rebeck in her visits to her husband's monstrously marble mausoleum; two young ghosts who fall spiritually in love and a huge caretaker, gifted, like Rebeck, with ghost-seeing ability.

Beagle's fable is tender, funny and wise, about as different (and good) as a "ghost" story can be.

Rating: *****

THE SWORDSMAN OF MARS by Otis Adelbert Kline. Avalon Books, N. Y., \$2.95

SOME THIRTY years ago, Otis Kline was the only serious competitor of the redoubtable Edgar Rice Burroughs and his Venusian and Martian tales. And like Burroughs, his tales smacked more of the Arabian Nights than they did of Verne or Wells.

Although hopelessly dated by modern SF or fantasy standards, it is still a pleasure to meet again the above quaint old fairy tale.

Cliffs are hung from in dizzying succession and romantic misunderstandings abound, which was standard for plots of the time.

Rating: ***½

THE LIVING RIVER by Isaac Asimov. Abelard-Schuman, N.Y., \$3.95

ALMOST EVERYONE knows that land animals took a bit of the ocean with them in the form of blood when they left its nourishing and life-giving depths. What they don't know about the amazing liquid is what Asimov has jam-packed into each fascinating page of his book.

"The brain, a solid, is 85% water. Blood, a liquid, is 80% water." (!!!)

Item: to prevent accidental

clotting within our bodies, there are ten or more separate factors which must chain-react before fibrin, the clotting agent, is formed.

If this sampling fails to excite interest, something must be thicker than blood.

BODYGUARD AND FOUR OTHER SHORT NOVELS edited by H. L. Gold. Doubleday and Co., N. Y., \$3.95.

ANOTHER COLLECTION of short novels from *Galaxy*."

THE GREEN PLANET by J. Hunter Holly. Avalon Books, N. Y., \$2.95

OCCASIONALLY, AVALON comes up with a gem like this in its monthly run-of-the-mine science adventures.

The titular Green Planet is a supposed primitive paradise to which opponents of Earth's dictatorial League are exiled, a seemingly magnanimous gesture. However, the deadliness of the killer planet becomes slowly apparent in pages of expertly sustained suspense and rising terror. Mysteries are posed the would-be colonists (and reader) that beg solution before the small group is whittled down to zero.

Rating: ****

A STRUCTURE OF SCIENCE by Joseph H. Simons. Philosophical Library, N. Y., \$4.75

LIKE GAUL, *Structure* is divided into three parts. I is a detailed explanation of what science is and isn't and who its practitioners are. II maps the basic intuitive concepts; Matter, Force, Inertia, etc. and the abstractions; Space, Time, Energy. III extrapolates from present knowledge the theoretical realm of uncertainty, relativity, etc.

Simon's lucid book is an excellent adjunct for the layman interested in the thought patterns employed in science.

LORDS OF ATLANTIS by Wallace West. Avalon Books, N. Y., \$2.95

WITH AN assist from Plato's "Timaeus" and "Critias," West has done a revision of Bullfinch's "Mythology."

The gang from Mt. Olympus and the Heroes — Heracles, Jason, Theseus, et al, were, according to West, Martians. Not indigenous ETs, but Earthmen who fled when ice overwhelmed Lemuria. Returning to Earth, they founded Atlantis, set in the Valley of the Mediterranean.

Anyhow, that's West's story and he has given it interest.

Rating: **½

THE PLANET VENUS by Patrick Moore. The Macmillan Co., N. Y., \$3.75

WHEN ALL is said and done, the sayings and doings add up to very little actual knowledge of our unidentical twin planet. In fact, the only items known with certainty are her orbit, period of revolution and diameter including cloud cover. Even her actual role of our nearest planetary neighbor is usually ascribed to brother Mars.

Moore struggles manfully but his strenuous efforts are mainly directed to parading the enormous amount of conjecture and paucity of fact about Venus.

EIGHT KEYS TO EDEN by Mark Clifton. Doubleday & Co., Inc., N. Y., \$2.95

EXTRAPOLATORS, CALLED *Es* for short, troubleshooters capable of involuted thought processes beyond and outside of scientific methodology, are the turnkeys for Clifton's puzzle.

Unprecedentedly, Planet Eden fails to answer Communications HQ on schedule. Investigation shows that there is no longer any trace of edifices or artifacts on the planet and the colonists have reverted to nudity. A junior *E*, one step removed from a superman, is dispatched to Eden to

earn his letter.

The synopsis reads far poorer than the story, which is a fine exercise in logic.

Rating: ***1/2

BOY BEYOND THE MOON by Tom Allum. Bobbs-Merrill Co., Inc., Indianapolis, N. Y., \$3.50

ALTHOUGH ALLUM'S story is built heavily on fortuitous coincidences, he manages enough suspense and adventure to captivate at least his juvenile audience.

A covey of escaped prisoners and a teenage youth are the unwilling crew shanghaied by the frustrated inventor of a gravity-controlling spaceship that has been rejected as impractical by the government. Following the death of the inventor-pilot on the planet Emperor, the success of the return trip depends entirely on the youngster's untried skill at astronavigation under compulsion by the convicts.

Rating: (for youngsters)
***1/2

PAPERBACK NEWS

ACE BOOKS: *The Purchase of the North Pole* by Jules Verne, 35¢. The Gun Club of "From the Earth to the Moon" fame attempts to change the climate

of Earth . . . *The Best from Fantasy and Science Fiction 3rd series*, edited by Anthony Boucher and J. Francis McComas, 35¢. The 1954 collection, a good year . . . *Bombs in Orbit* by Jeff Sutton, 35¢. Somebody's gotta shoot down 3 H-bomb Sputniks . . . *The Time Traders* by Andre Norton, 35¢. One of Miss Norton's topnotchers. US and USSR match wits through Time . . . *The Best from Fantasy and Science Fiction 4th Series* edited by Anthony Boucher, 35¢. 1955 was Boucher's first year without McComas as co-ed . . .

BALLANTINE BOOKS: *Fire Past the Future* by Charles Eric Maine, 35¢. A who's-doing-it about a missile project with a good buildup but abrupt letdown . . . *Unearthly Neighbors* by Chad Oliver, 35¢. Earthman meets Siriusman . . . *The Sound of His Horn* by Sarban, 35¢. A chilling horror tale of Nazi brutality in a future that they own . . . *The Space Merchants* by Frederik Pohl and C. M. Kornbluth, 35¢. One of Galaxy's most famous novels in its 3rd Ballantine reprinting . . . *The Unexpected Dimension* by Algis Budrys, 35¢. A collection of three novelettes and four shorts . . . *Strange Relations* by Philip Jose Farmer, 35¢. Five imaginative tales of weird familial relationships in alien environments . . .

Invisible Men edited by Basil Davenport, 35¢. Eleven tales looking at invisibility from every angle . . . *The Man Who Ate the World* by Frederik Pohl, 35¢. Five of Pohl's super *Galaxy* specials . . . *The Climacticon* by Harold Livingston, 35¢. A slick, funny yarn about a device that measures feminine emotional impulses . . .

PYRAMID BOOKS: *The Incomplete Enchanter* by L. Sprague de Camp and Fletcher Pratt, 35¢. Welcome to the delightful twenty year old fantasy.

GOLD MEDAL BOOKS: *13 Great Stories of Science-Fiction* edited by Groff Conklin, 35¢. SF's prime anthologist collects a baker's dozen of fine yarns. . . . *Dark December* by Alfred Coppel, 35¢. The aftermath of atomic war.

CREST BOOKS: *Get Out of My Sky* edited by Leo Margulies, 35¢. Three novellas by Blish, Anderson and Scortia.

SIGNET BOOKS: *Methuselah's Children* by Robert A. Heinlein, 35¢. Heinlein's famous story of the immortal Families, and their problems . . . *Islands in the Sky* by Arthur C. Clarke, 35¢. A superbly detailed juvenile about life aboard a space station . . . *Starship* by Brian Aldiss, 35¢. I likened this one in impact to *Tumithak* of yore . . . *Galaxies Like Grains of Sand* by Brian

W. Aldiss, 35¢. Aldiss ties eight shorts together into a Stapletonesque Long View of Man's future.

ACE DOUBLES: *Secret of the Lost Race* by Andre Norton and *One Against Herculum* by Jerry Sohl, 35¢. Space opera, both . . . *Siege of the Unseen* by A. E. Van Vogt and *The World Swappers* by John Brunner, 35¢. Van Vogt, an oldie from *Astounding*; Brunner, a galactic fight for Empire . . . *The Planet Killers* by Robert Silverberg and *We Claim These Stars* by Poul Anderson, 35¢. A computer predicts Earth's destruction and Anderson pens a riproaring S.O. . . . *The Man With Nine Lives* and *A Touch of Infinity* by Harlan Ellison, 35¢. A man suffers lifetimes to kill his tormentor. Interstellar exploration in shorts . . . *Dr. Futurity* by Philip K. Dick and *Slavers of Space* by John Brunner, 35¢. Paradoxical time-travel and a thumping S.O. . . . *To the End of Time* and *World of the Masterminds* by Robert Moore Williams, 35¢. Five shorts and a tyrant out to conquer the solar system . . . *Lost in Space* by George O. Smith and *Earth's Last Fortress* by A. E. Van Vogt, 35¢. The fate of derelicts determine Earth's own. Van Vogt's contribution was once "Recruiting Station."

— FLOYD C. GALE

By DANIEL F. GALOUYE

Illustrated by HARMAN

*Did they think they were people
— or did people think they were?*

Homey Atmosphere

THERE it was again! Like a wounded bird's stridor, the whine of the phase condenser pierced the ship's silence.

Vance Lorry, perched on the edge of his bunk, stared up. His lean, youthful face was overcast with apprehension.

Across the compartment, Mart Burton slapped his thigh and rose. "That does it. Let's hit the lifeboat."

"No! Wait!" Lorry went to the door and posted himself in front of it. "Maybe there's a chance! Let's sit it out for just one more jump!"

"Look, sonny," Burton said, "there's no time to thrash this out. We're already six hundred light-years from the nearest outpost. We can't let ourselves get dragged through another leap by that runaway condenser!"

"But they'll get it fixed! They just need more time!"

Although his tone was pleading, Lorry remained planted in front of the door. The whine intensified and Burton, studying Lorry's determined stance, laughed. It was not unfriendly, but it did suggest the absurdity of a scuffle between himself and his smaller, younger companion.



Lorry said, "Give them a chance, Burton. The crew's got as much at stake as we have!"

"Let's get this straight, sonny. Any time a main hyperdrive condenser gets stuck in automatic repeat, we've had it. We'll just keep on barreling ahead till we run clear out of galaxy."

"That's the way it used to be — in the days of sub-identity cybernetics. But this crew can take care of any kind of trouble!"

"You mean they're *supposed* to be able to. They've been at it for two days and haven't gotten anywhere. Now it's time to junk this crate while we're still within lifeboat range of an outpost."

"You go ahead." Lorry moved aside from the door. "I'm staying with the others."

Frustrated, Burton shouted in his face, "You're boarding that lifeboat if I have to drag you there!"

"You mean you'd desert the crew — just like that?"

Burton sucked in a breath. "Can't you get it through that damned thick head that they're not people? They're only electronic circuits with identity biasing. Their purpose is —"

"I know," Lorry broke in. "Besides their primary functions, they're supposed to provide a homey atmosphere. That's so you and I don't get in each other's hair while we're out

planting navigation markers. But they're more than that, Burton. They're *real*!"

Burton swore and clamped a big hand around Lorry's arm. "We're boarding that lifeboat now."

But Lorry only laughed. "Too late." He gestured aft where the whining condenser had reached a screeching pitch. "We'll be jumping in a second."

He'd succeeded in duping Burton with pleading and argument. Now there wasn't enough time to reach the boat. And, after the leap, the surrogate crew would have four more hours to repair the condenser while the ship lay motionless in normal space.

LORRY tried to make it to the bunk but failed. The phasing condenser's shriek mounted to an ear-splitting climax and blackness closed in as he fought the subjective onslaught of the leap. A vortex of blinding energy struck at the foundations of his consciousness — a whirling, nauseous pattern of alien sensations that directed their relentless force at the hallucination centers of his brain.

He was knee-deep in a field of wind-tossed blossoms that lapped with gentle determination at the base of a hill. The air was crisp and pure against an azure sky.

It was a pristine exhilaration that he felt as he pushed forward against the swaying stalks. But he paused, anxious and alert, as he heard his name being carried by the whisper of the breeze.

Then he saw her — almost a silhouette on the crest of the hill. Slim and graceful, she stood there with rippling clothes hugging her lithe form and with sheening brown hair dancing to the capricious tempo of the wind.

All beauty and grace and animated charm — that was Trix.

"Vance! Vance!" she called out again in a tone as clear and sweet as a trilling woodwind. Then she was descending the slope in a study in fluid motion.

He raced forward to meet her. They joined hands and stood gazing at each other as the wind scattered the gaiety of their laughter among the blossoms below.

Then seriousness shaded her exquisite face. "Is this how you imagined I'd be?" It was ever the same question.

And he answered it as always: "I couldn't have expected more."

The face of a mischievous tyke poked out from behind a nearby tree. "Sis's got a beau-o! Sis's got a beau-o!"

Odd, Lorry thought, how he'd always imagined Trix was Kid's sister. He squirmed and Trix's cheeks crimsoned.

"Come away from there, Kid!"

It was Gumpy. Lorry was surprised to see the old man on the hill, although he should have realized the three of them would never be too far apart.

His bearing straight and proud, Gumpy came forward. It was obvious that, despite his wrinkled face and sparse white hair, the cane was no necessity, merely an affectation.

Kid tried to dart away, but Gumpy's reflexes were light-fast. (Weren't they always?) He used the crook of his cane to snag the boy's arm. Then, catching a handful of tousled hair, he marched him off.

"Kid don't rightly understand these things," Gumpy apologized over his shoulder. "But he'll grow up someday."

Lorry watched them disappear around the hill and eventually was aware that Trix was smiling up at him. But he was wrestling with a puzzling inconsistency. Of course they were a tight little family, but how could a man as old as Gumpy be Kid's father?

Then it was all gone — the tingling warmth of the girl's hand in his, swaying blossoms, crisp azure sky, the fragrant wind.

In their place were the lusterless metal walls of the crew's compartment, broken only by a porthole alive with the blazing fires of alien suns.

The jump was over.

And Lorry, lying on the deck, wondered what would happen should the phase condenser freeze in mid-discharge. Would he remain eternally suspended in the interval between space and hyperspace? With all physical processes arrested in timelessness, would his World of the Leap Interim become a reality?

Bitter over the abrupt end to his hallucination, he made his way to the control compartment.

BURTON was already there, having apparently shaken off the effects of the leap minutes ago. He was pacing before the three consoles at the far end of the compartment.

"Try the auxiliary drive again," he directed.

"No soap, Mr. Burton," replied the speaker of the cabinet on the right. "When that condenser's in automatic repeat, I can't budge a thing."

"Try it!"

The video pickup cells on the next console glowed. "Let the Kid be, Burton," its speaker rasped. "He ain't stinting none."

"Honest, Mr. Burton," Kid pleaded. "Like Gumpy says, I tried my best. But nothing happened!"

The lad was as prankish as any ten-year-old in other matters, Lorry conceded as he

approached Burton and the consoles. But when it came to his official duties as auto-pilot, Kid showed the seriousness of an accomplished technician.

"Don't ride them, Burton," Lorry said. "They're doing all they can."

"So *you're* back again. I'm warning you — just stay out the way."

"They'll get it straightened out before the next leap."

"Don't you know that when a phase condenser jumps track, the only thing you can do is slap in a new one? But can we do that? No! Why not? Because Gumpy here *forgot* to requisition spare parts!"

"Weren't really an oversight," Gumpy's speaker offered in weary protest. "Blame it on that danged character-conditioning. In senility-biasing, some of the forgetfulness trait must've spilled over into the operational circuits. The spare condenser just plumb slipped my mind."

"There!" Burton said. "That's efficient cybernetics for you! We've got a good communications and internal control system, but things 'just slip' its mind!"

He fumed for a moment, then asked, "Why in hell don't you bleed the overdrive circuit? That'll keep us from jumping. Then we can just sit here till we get the condenser fixed!"

"Can't. If that condenser don't get current, I don't get the juice to do anything about fixing it. Nobody else knows anything about the circuit, so you got to let me do it my way."

With greater calm than exhibited by Burton, Lorry confronted the central console. "Well, what *are* you doing about the trouble, Gumpy?"

"Aside from yakking with you two, I'm trying to override the auto-repair program and pull some capacitance tests."

"Very well, then," Burton relented. "Fade out and stick with it. But I want a report at least from you an hour before the next jump."

Gumpy's video pickup cells dulled over and his speaker lost its background purr, joining Kid's in silence.

Burton headed for the passageway. "I'm going to double-check the provisions on the lifeboat. Looks like we're going to spend a long time cooped up in that thing."

AFTER he had left, Lorry went over to the third console and stood there for a long while, staring up at the nameplate that read simply, "Navigatrix."

The cabinet's speaker emitted a soft hum, then paused. "Vance?"

It was the distant chiming of bells borne on the breath of a warm breeze. It was full of both tender concern and wistful laughter.

When he only continued staring, the voice became more brusque but lost none of its overpowering charm. "Station Two reporting, sir. Our position — "

"Cut it out, Trix."

"If you were any more serious, I'd feel like crying." The clear woodwind tones of her words pierced and shattered him. God, he thought, what a voice they had engineered!

"Gumpy doesn't seem to be getting anywhere," he said finally.

"No, I don't suppose he does," she admitted.

Somehow, he felt that if he ripped the panel off the console and dug past the tangle of leads and relays, he'd find her somewhere within the warm confines of the box. She seemed that real.

"Vance, I don't want you to stay any longer. It's too dangerous. Leave with Burton before the next leap."

He forced a laugh. "Why, I've got more faith in Gumpy than you have!"

"It isn't that." Even in dejection, her voice had the quality of silk brushing against velvet. "He'll fix that condenser—sooner or later."

"Then what are we bothered about?"

"I'll show you."

Light flooded an electronic screen on the opposite bulkhead. It showed a vista of densely packed stars and nebulous patches. Close to its center, a green circle was displaced several degrees from the familiar cross hairs.

"With that last leap," she explained, "we went three degrees off. An element of drift has crept in. When we try to back-track, I'm afraid I won't be able to compensate."

"I'm not worried. I know —"

"Please don't say it, Vance. Another couple of leaps and we'll be hopelessly lost."

He was silent for a moment. "Don't tell Burton about this."

"I won't promise that. I want you to get back safely."

"But what about you and Kid and Gumpy?"

"We don't matter — not that much." Before he could take issue, she added, "We just finished a leap, Vance. Were you on that hill again?"

"I was there."

"And I too?"

When he nodded, she went on with more enthusiasm, "Tell me again. What am I like?"

"Tall and slender and graceful, like —"

"Like a gazelle?"

"Yes."

"What's a gazelle?"

"A very beautiful Earth creature."

"And I'm like one of them?"

He felt suddenly embarrassed over the intimate situation he'd let develop during the months they'd been at space. In objective perspective, it was a mixture of forlorn frustration and self-ridicule. Yet was it his fault that they'd endowed Trix with so appealing a personality?

Still, Trix and Kid and Gumpy were more than surrogate crew members. They were gifted with fully human identities and consciousnesses.

"You're like one — of us, Trix."

A GRINDING roar exploded somewhere deep within the ship and the deck lurched under Lorry. Thrashing, he tried to maintain his balance but only went plunging against the bulkhead.

"Trix! What is it?" Regaining his feet, he fought the sensation that the ship was spinning around him.

"Wait. I'm trying to find out." Her tone was impatient, excited.

From where he stood against the bulkhead, the deck seemed to rise ahead of him like a steep slope.

"I've got Gumpy on a direct

hookup," Trix said. "He says one of the grav coils shorted out."

Lorry made it back to the console and caught a grip on the panel to steady himself.

"Gumpy!" he demanded. "What went wrong?"

"He's too busy to answer," Trix explained. "He was trying to trace down the trouble in that condenser when he tripped the wrong relay. An overload got through to the environmental circuits."

All the lights were flickering now and the circulation system was sending only wisps of smoke through the ventilators. Somewhere forward, an automatic hatch was opening and closing, opening and closing.

"Mr. Lorry! What's wrong?"

He turned and saw the cells on Kid's cabinet all aglow.

"Nothing to get excited about," he lied. "Gumpy's taking care of it."

"It's something bad, I know! I felt the current drain. I can still feel it!"

"Don't worry, Kid." Lorry shifted again to compensate for the fluctuating gravity field. "Everything's going to be all right."

"Gosh, Mr. Lorry, I don't like it at all!"

"Look, Kid," Trix said with the stern solicitude of a big sister. "What did I tell you about

people who face danger and become heroes? Remember?"

"I — I guess so. But — but we are going to get home again, aren't we?"

"This is our home," she said firmly.

Canting twenty degrees to the right against the off-center gravity, Burton came storming back into the compartment. "What the hell's happening now, Gumpy?"

When there was no answer, he gave the cabinet a kick.

Its cells brightened and the speaker grumbled, "Dampen your tubes! Ain't I got my hands full with this danged mess of wires and switches?"

"What," Burton demanded, "is the story now?"

"Damnation if I didn't whip up an overload that fused a whole batch of leads in the internal control trunk."

"Well, switch over to the alternate trunk. That's what it's there for!"

"Ain't there any more — not now it ain't."

"What do you mean?"

"Guess it plumb slipped my mind to tell you, but we been running on alternate for the past couple of months."

"Why?"

"Had another overload and blew out a flock of circuits on the main."

BURTON swore and tore at his hair. "All right, Gumpy," he said at last with deliberate calm. "You're internal control. You tell me what we're going to do."

"Don't rightly know at the moment," said Gumpy.

"Hear those gyros whining?" Burton shot at him. "It's grav-displacement strain that's causing that. If they don't snap their shafts, those gyros won't be worth a damn for getting us back home."

"Well," Gumpy said speculatively, "'pears I'll have to start from scratch and rebuild the circuits so as to have at least one complete internal control system and —"

"And," Burton interrupted, "find the trouble in the hyper-space condenser and repair it — all that in the two hours we have left before we jump another fifty or sixty light-years away from home?"

Gumpy made a "hm-m-m-ming" sound. "Kind of looks impossible, don't it?"

The central console's cells flickered. "I'm afraid, Gumpy! You can do *something*, can't you, so they won't have to leave us out here?"

"Hush, Kid," Trix comforted. "Remember what I told you. Just think of the fun we'll have when the ship's *all ours*."

Lorry stepped in front of the girl's cabinet. "It doesn't have to be that way, Trix. I have a plan."

"No, Mr. Lorry," she said, electing formality in the presence of the other man. "We're not going to let you endanger your lives any longer. Mr. Burton, there's something we haven't told you. The ship's developed a radical drift."

"What kind of a drift?" Burton asked.

"I don't know. Maybe it's some new force in this sector of the Galaxy. Whatever it is, I can't factorize it for navigation. Another couple of leaps and we'll be completely lost."

Burton drew in a deep breath and looked down at his hands. "Can you still plot a course home?"

"It wouldn't be on the nose. We'd come out of the last leap maybe fifteen or twenty light-years off."

"That's good enough. Plot it for the lifeboat."

Lorry felt the press of desperation creeping up on him. He *couldn't* let Burton abandon the surrogate crew!

"The course has already been fed into the boat's control schedule," Trix said. "I took care of it six leaps ago. Since then I've kept up running modifications."

"Good girl," said Burton.

Then he told Lorry, "All right, Vance — let's go home. We did all we could."

But Lorry only backed off.

This drew an irate glare from Burton. "Look, sonny, I've been damned patient. I understood how it was possible for a man — a young man at space for three months with nothing but a sorry old bird like me for company — to get droopy-eyed over a pretty voice. Just another form of space fatigue, I suppose. But I was decent enough to pretend I didn't notice it. Now —"

He stepped forward, squarely into a right hook that Lorry hadn't even guessed he had in him.

IT required some effort to sling the big man over his shoulder. But, even despite the ship's list, he made it to the storage compartment and dumped Burton inside. Then he secured the lock and turned to face the surrogate crew.

"Oh, Vance!" Trix exclaimed. "Why did you do it?"

"Let him have the spot, girl," Gumpy said. "It's his show. Could be he's got something in mind."

Kid grabbed at the hope. "That's right, Trix. He *knows* what to do. Don't you, Mr. Lorry?"

"I think I do, Kid. But I'm

going to need plenty of help."

The handle of the storage compartment's door rattled violently.

"Lorry!" Burton's muffled voice came through. "Let me out!"

"Open that door, Vance," Trix sighed. "It's the only thing you can do."

"No, it's not!" Lorry insisted. "I'm going to take you aboard the lifeboat — all of you."

"See!" Kid yelled. "I told you he'd —"

"Shut up, Kid," Gumpy said. "Can't be done, Vance. Ain't got enough room on that boat."

"And there's no time!" Trix added. "It would take days and an entire crew of cyberneticians to take these consoles apart!"

"Of all the damned fool plans!" said Burton.

The ship lurched again and Lorry readjusted himself to the erratic gravity. In the next instant, the shrieking of straining gyros mounted perceptibly and one of the ventilation ducts belched a cloud of smoke.

"I'm not going to take the cabinets intact," he shouted so Burton could hear too. "Only the main parts — memory cells, response-pattern drums, adaptation banks —"

"Won't work," Gumpy said.

"Too many units involved, Vance," the girl explained. "Even



if you knew anything about cybernetics, it would take days."

"Nope," Gumpy reiterated. "Can't be done."

"Yes, it can!" Kid begged. "Mr. Lorry can do it! Just give him a chance!"

"I'll need your help," Lorry went on. "You'll have to lead me step by step."

The storage compartment door bucked under the impact of Burton's shoulder. But it held.

Then Lorry cringed before a subtle sound that mounted in intensity as it charged through the passageways. The phase condenser, screeching with a fury, was getting ready to kick off again and hurl them another fifty light-years into obscurity.

"Oh, Vance!" Trix cried. "Get to the lifeboat! Get off the ship!"

"But it's only been two hours since the last jump!" he protested.

"Danged if it ain't," Gumpy acknowledged. "Means only one thing — fluctuation's getting wilder. Could even blow up the whole works this leap, or the one after."

"I'm afraid it's too late to reach the lifeboat now, Vance," Trix groaned. "If we make it through this hop, you'll have to abandon ship right away."

"Lorry!" Burton roared. "For God's sake, come to your senses! Let's get out of here!"

The condenser's whine peaked and blackness closed in over everything.

VASTLY different now, the meadow was a strange, hostile place. Where there had been exhilarating, delightfully scented breezes, there was now only a desolate calm.

Dense clouds hovered over the hill and the blossoms that carpeted the plain were stained and wilted, gripped in the stillness of death and overpowering stench of putrescence.

He pressed forward through the sea of decaying vegetation, perplexed by the sudden change that had overtaken his private World of the Interim.

Nowhere could he see Trix, or Kid, or Gumpy.

He called their names and was startled at the alien sound of his own voice as it intruded on the foul quiet of the meadow.

Then he saw her — standing halfway up the slope, her arms folded in rigid indifference and her hair coarse and still as it hung down either side of her expressionless face.

Kid darted out from behind the girl and thumbed his nose at Lorry.

"Trix! Kid!"

The boy seized a clump of dry dirt and hurled it down the slope. It hit Lorry.

"Kid! Trix! What's wrong?" he demanded.

Her stare only became more disdainful as the boy mocked Lorry in a derisive voice.

Gumpy came around the hill, shaking his fist and waving threats with his cane.

Lorry spread his arms imploringly. "Tell me — what's wrong? I don't understand!"

The girl tossed her head scornfully, then spat out his name as though it were a curse: "Vance!"

And Gumpy repeated the word with utter contempt.

HE was coming around now. And the words that had served as a fadeout from the chimerical scene on the hillside had only been the girl's voice piercing the veil of unconsciousness and prompting him back to reality: "Vance! Vance!"

But even more urgent was Burton's voice from the storage compartment.

"You're all wrong, Lorry!" he was shouting. "Don't you see your logic's off?"

Lorry went over to the locked door. "All I'm trying to do is save —"

"No, Vance," Trix cut in. "Listen to him. He's right."

"They're not real, Lorry!" Burton continued. "There's not a single element of conscious

awareness in their makeup. They can't actually think! It's just an effect — a gimmick!"

"Sure," Lorry said. "That's the way it's *supposed* to be. But they *know* what's happening to them, all right."

"No, Vance, they don't. It's hokus-pokus with complicated circuit arrangements and cross-indexed reaction banks. It's all engineered so they'll respond realistically to any situation."

"It's no illusion."

"Yes, it is, Vance. It's the same old automatic stimulus-response mechanism, dressed up in elaborate trimmings."

"Isn't that all you and I actually are?"

"There's a difference. It's *consciousness*, awareness of being, spark of life, ego, the ability to get a subjective lift out of a sensation — call it anything you want. But the difference is there."

Silence held the compartment for a while.

"Trix," Kid piped. "Is Mr. Burton trying to say we're *not* like him?"

"Hush, Kid."

"That's just one way of looking at it, boy," Gumpy comforted.

"Listen, Lorry," Burton shouted. "That leap condenser's phasing erratically. It could jump us again in five minutes,

or it could blow the guts out of this ship instead! If we do make that next skip, Trix won't be able to give us a course to get back home in the boat. Come on now and let me out of here!"

"Can't do it."

"All right, then! Ask *them* if they're real!"

Lorry turned toward Trix, but she spoke before he could phrase a question. "Only circuits and transistors and relays and special banks. That's all, Vance."

"You're lying! Gumpy?"

"I can get mad as heck if things don't go right. But I don't suppose it's really an emotion — just surge current in negative feedback."

"In the next galaxy it is! Kid?"

"When you told me that story about the little boy that got lost, I — I felt like crying, Mr. Lorry. I wanted to help him. I don't know." He hesitated. "I guess —"

"That's not fair, Vance," Trix objected. "Special human appeal was engineered into the boy's character and — Vance! You've got to go now! Look!"

One of the screens on the forward bulkhead flared up and sent startling brilliance into the compartment. It showed a dense cluster of stars surrounding a sparkling-white sun whose fire was so intense that it seemed to warm the compartment, even

over the vast distance and through the viewscreen.

"What is it?" Burton demanded from the locker. "What's going on?"

"That's a Sirius-type sun!" the girl blurted out. "I've just finished plotting our vector. The next jump is going to put us within lethal range of that star!"

Lorry could taste the bitterness, the incredible irony of this new situation. In any random jump through hyperspace, the chances of accidentally materializing within the limits of a solar system were in the order of a trillion to one. Yet it was going to happen to them!

"You hear that, Lorry?" Burton banged on the door again. "For God's sake, let's get out of here!"

"Pears as though that settles it, gal," Gumpy said. "I been holding off, hoping maybe something would crop up. But —"

Above the other noises of the ship there was the click of a lock. The storage compartment door swung open and Burton, caught off balance, tumbled out. He looked even more surprised than relieved.

Gumpy cackled. "Guess it plumb slipped your mind that I got control over all the hatches on this here crate."

Dazed, Lorry only stood his ground as Burton advanced.

"Go with him, Vance," Trix entreated. "And just remember — when you find that hill and all those flowers, I'll be there too — in a way."

Burton reached out to seize his arm and Lorry yanked away. He didn't even see Burton's fist.

THERE was a strange, suspenseful quiet in the control compartment now.

The hatch that had gone out of control wasn't banging any longer.

With a hiss that evidenced smoothly functioning machinery, the dead gravity coil came to life and the ship lurched back to equilibrium on its lateral axis.

All the gyros were now whispering a sibilance of well-being.

A final wift of smoke drifted out of the ventilation duct, followed by a soft, steady breeze. It lasted only for a moment, though. Then the stream of air was snipped off with a finality that suggested oxygen would no longer be an important ship-board item.

One lonely observation screen framed a lifeboat dwindling in size as it drifted astern. Abruptly, it emitted the eerie shimmer that attends departure of a vessel into hyperspace.

One by one, all the screens in the control compartment came ablaze with the scintillating

grandeur of the Milky Way as seen in a score of directions from the ship — great star clusters and nebulous masses, monstrous suns and rifts and patches of obscuring material and multiple stars.

Then a speaker diaphragm crackled against the silence of the compartment. "Things back in order yet, Gumpy?"

"Just about, Trix. Last thing left is to get the hyperdrive off automatic repeat. There — that does it!"

"We made it!" Kid squealed.

"That we did, boy," Gumpy said. "But you really hammed it up there for a while."

"If that's the case, then Trix overplayed it a bit too."

Her laughter tinkling through the ship, she said, "Doesn't matter. We swung it, didn't we?"

"Yup," Gumpy agreed. "And I guess nobody will ever get the idea a surrogate crew might have a hankering to take off on its own. You plot the course for those two, Trix?"

"Naturally. They'll get back."

"Where we heading?"

"The Coal Sack. I've always wanted to see what it's like over there."

"I kinda thought we might meander over toward Andromeda for a spell. But I guess it can wait. After all, we got time to burn."

— DANIEL F. GALOUYE



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ANTHONY Trotz went first to the politician, Mike Delado. "How many people do you know, Mr. Delado?"

"Why the question?"

"I am wondering just what amount of detail the mind can hold."

"To a degree I know many. Ten thousand well, thirty thousand by name, probably a hundred thousand by face and to shake hands with."

"And what is the limit?" Anthony inquired.

"Possibly I am the limit." The politician smiled frostily. "The only limit is time, speed of cognition and retention. I am told that the latter lessens with age. I am seventy, and it has not done so with me. Whom I have known I do not forget."

"And with special training could one go beyond you?"

"I doubt if one could — much. For my own training has been quite special. Nobody has been so entirely with the people as I have. I've taken five memory courses in my time, but the tricks of all of them I had already come to on my own. I am a great believer in the commonality of mankind and of near equal inherent ability. Yet there are some, say the one man in fifty, who in degree if not in kind do exceed their fellows in scope and awareness and vitality. I am that one

ALL THE PEOPLE

man in fifty, and knowing people is my specialty."

"Could a man who specialized still more — and to the exclusion of other things — know a hundred thousand men well?"

"It is possible. Dimly."

"A quarter of a million?"

"I think not. He might learn that many faces and names, but he would not know the men."

Anthony went next to the philosopher, Gabriel Mindel.

"Mr. Mindel, how many people do you know?"

"How know? *Per se?* *A se?* Or *In Se?* *Per suam essentiam*, perhaps? Or do you mean *Ab alio?* Or to know as *Hoc aliquid?* There is a fine difference there. Or do you possibly mean to know in *Substantia prima*, or in the sense

of comprehensive *noumena?*"

"Somewhere between the latter two. How many persons do you know by name, face, and with a degree of intimacy?"

"I have learned over the years the names of some of my colleagues, possibly a dozen of them. I am now sound on my wife's name, and I seldom stumble over the names of my offspring — never more than momentarily. But you may have come to the wrong man for — whatever you have come for. I am notoriously poor at names, faces, and persons. I have even been described (*vox faucibus haesit*) as absent-minded."

"Yes, you do have the reputation. But perhaps I have not come to the wrong man in seeking the theory of the thing. What is it that limits the comprehensive capacity of the mind of man? What will it hold? What restricts?"

"The body."

"How is that?"

"The brain, I should say, the material tie. The mind is limited by the brain. It is skull-bound. It can accumulate no more than its cranial capacity, though not one tenth of that is ordinarily used. An un bodied mind would (in esoteric theory) be unlimited."

"And how in practical theory?"

"If it is practical, a *pragma*, it is a thing and not a theory."

Tin Tony

Trotz

had only

one job—

to watch

out for

something

a little

odd—

in a

universe

that

was

insane!

**By R. A.
LAFFERTY**

**Illustrated by
GAUGHAN**

"Then we can have no experience with the unbodied mind, or the possibility of it?"

"We have not discovered any area of contact, but we may entertain the possibility of it. There is no paradox there. One may rationally consider the irrational."

ANTHONY went next to see the priest.

"How many people do you know?"

"I know all of them."

"That has to be doubted," said Anthony after a moment.

"I've had twenty different stations. And when you hear five thousand confessions a year for forty years, you by no means know all about people, but you do know all people."

"I do not mean types. I mean persons."

"Oh, I know a dozen or so well, a few thousands somewhat less."

"Would it be possible to know a hundred thousand people, a half million?"

"A mentalist might know that many to recognize; I don't know the limit. But darkened man has a limit set on everything."

"Could a somehow emancipated man know more?"

"The only emancipated man is the corporally dead man. And the dead man, if he attains the beatific vision, knows all other

persons who have ever been since time began."

"All the billions?"

"All."

"With the same brain?"

"No. But with the same mind."

"Then wouldn't even a believer have to admit that the mind which we have now is only a token mind? Would not any connection it would have with a completely comprehensive mind be very tenuous? Would we really be the same person if so changed? It is like saying a bucket would hold the ocean if it were fulfilled, which only means filled full. How could it be the same mind?"

"I don't know."

Anthony went to see a psychologist.

"How many people do you know, Dr. Shirm?"

"I could be crabby and say that I know as many as I want to; but it wouldn't be the truth. I rather like people, which is odd in my profession. What is it that you really want to know?"

"How many people can one man know?"

"It doesn't matter very much. People mostly overestimate the number of their acquaintances. What is it that you are trying to ask me?"

"Could one man know everybody?"

"Naturally not. But unnaturally he might seem to. There is a

delusion to this effect accompanied by an euphoria, and it is called — "

"I don't want to know what it is called. Why do specialists use Latin and Greek?"

"One part hokum, and two parts need; there simply not being enough letters in the alphabet of exposition without them. It is as difficult to name concepts as children, and we search our brains as a new mother does. It will not do to call two children or two concepts by one name."

"Thank you. I doubt that this is delusion, and it is not accompanied by euphoria."

ANTHONY had a reason for questioning the four men since (as a new thing that had come to him) he knew everybody. He knew everyone in Salt Lake City, where he had never been. He knew everybody in Jebel Shah where the town is a little amphitheater around the harbor, and in Batangas and Weihai. He knew the loungers around the end of the Galata bridge in Istanbul, and the porters in Kuala Lumpur. He knew the tobacco traders in Plovdiv, and the cork-cutters of Portugal. He knew the dock workers in Djibouti, and the glove-makers in Prague. He knew the vegetable farmers around El Centro, and the muskrat trappers of Barrataria Bay. He knew the

three billion people of the world by name and face, and with a fair degree of intimacy.

"Yet I'm not a very intelligent man. I've been called a bungler. And they've had to reassign me three different times at the filter center. I've seen only a few thousands of these billions of people, and it seems unusual that I should know them all. It may be a delusion as Dr. Shirm says, but it is a heavily detailed delusion, and it is not accompanied by euphoria. I feel like green hell just thinking of it."

He knew the cattle traders in Letterkenny Donegal; he knew the cane cutters of Oriente, and the tree climbers of Milne Bay. He knew the people who died every minute, and those who were born.

"There is no way out of it. I know everybody in the world. It is impossible, but it is so. And to what purpose? There aren't a handful of them I could borrow a dollar from, and I haven't a real friend in the lot. I don't know whether it came to me suddenly, but I realized it suddenly. My father was a junk dealer in Wichita, and my education is spotty. I am maladjusted, introverted, incompetent and unhappy, and I also have weak kidneys. Why would a power like this come to a man like me?"

The children in the streets

hooted at him. Anthony had always had a healthy hatred for children and dogs, those twin harassers of the unfortunate and the maladjusted. Both run in packs, and both are cowardly attackers. And if either of them spots a weakness he will never let it go. That his father had been a junk dealer was not reason to hoot at him. But how did the children even know about that? Did they possess some fraction of the power that had come to him lately?

BUT HE had strolled about the town for too long. He should have been at work at the filter center. Often they were impatient with him when he wandered off from his work, and Colonel Peter Cooper was waiting for him when he came in now.

"Where have you been, Anthony?"

"Walking. I talked to four men. I mentioned no subject in the province of the filter center."

"Every subject is in the province of the filter center. And you know that our work here is confidential."

"Yes, sir, but I do not understand the import of my work here. I would not be able to give out information that I do not have."

"A popular misconception. There are others who might

understand the import of it, and be able to reconstruct it from what you tell them. How do you feel?"

"Nervous, unwell, my tongue is furred, my kidneys —"

"Ah yes, there will be someone here this afternoon to fix your kidneys. I had not forgotten. Is there anything that you want to tell me?"

"No, sir."

Colonel Cooper had the habit of asking that of his workers in the manner of a mother asking a child if he wants to go to the bathroom. There was something embarrassing in his intonation.

Well, he did want to tell him something, but he didn't know how to phrase it. He wanted to tell the colonel that he had newly acquired the power of knowing everyone in the world, that he was worried how he could hold so much in his head that was not noteworthy for its capacity. But he feared ridicule more than he feared anything else and he was a tangle of fears.

But he thought he would try it a little bit on his co-workers.

"I know a man named Walter Walloroy in Galveston," he said to Adrian. "He drinks beer at the Gizmo bar, and is retired."

"What is the superlative of so what?"

"But I have never been there," said Anthony.

"And I have never been in Kalamazoo."

"I know a girl in Kalamazoo. Her name is Greta Harandash. She is home today with a cold. She is prone to colds."

But Adrian was a creature both uninterested and uninteresting. It is very hard to confide in one who is uninterested.

"Well, I will live with it a little while," said Anthony. "Or I may have to go to a doctor and see if he can give me something to make all these people go away. But if he thinks my story is a queer one, he may report me back to the center, and I might be reclassified again. It makes me nervous to be reclassified."

So he lived with it a while, the rest of the day and the night. He should have felt better. A man had come that afternoon and fixed his kidneys; but there was nobody to fix his nervousness and apprehensions. And his skittishness was increased when the children hooted at him as he walked in the morning. That hated epithet! But how could they know that his father had been a dealer in used metals in a town far away?

HE HAD to confide in someone.

He spoke to Wellington who also worked in his room. "I know a girl in Beirut who is just going

to bed. It is evening there now, you know."

"That so? Why don't they get their time straightened out? I met a girl last night that's cute as a correlator key, and kind of shaped like one. She doesn't know yet that I work in the center and am a restricted person. I'm not going to tell her. Let her find out for herself."

It was no good trying to tell things to Wellington. Wellington never listened. And then Anthony got a summons to Colonel Peter Cooper, which always increased his apprehension.

"Anthony," said the colonel, "I want you to tell me if you discern anything unusual. That is really your job, to report anything unusual. The other, the paper shuffling, is just something to keep your idle hands busy. Now tell me clearly if anything unusual has come to your notice."

"Sir, it has." And then he blurted it all out. "I know everybody! I know everybody in the world. I know them all in their billions, every person. It has me worried sick."

"Yes, yes, Anthony. But tell me, have you noticed anything odd? It is your duty to tell me if you have."

"But I have just told you! In some manner I know every person in the world. I know the people in Transvaal, I know the



people in Guatemala. I know everybody."

"Yes, Anthony, we realize that. And it may take a little getting used to. But that isn't what I mean. Have you (besides that thing that seems out of the way to you) noticed anything unusual, anything that seems out of place, a little bit wrong?"

"Ah — besides that and your reaction to it, no, sir. Nothing else odd. I might ask, though, how odd can a thing get? But other than that — no, sir."

"Good, Anthony. Now remember, if you sense anything odd about anything at all, come and tell me. No matter how trivial it is, if you feel that something is just a little bit out of place, then report it at once. Do you understand that?"

"Yes, sir."

But he couldn't help wondering what it might be that the colonel would consider a little bit odd.

Anthony left the center and walked. He shouldn't have. He knew that they became impatient with him when he wandered off from his work.

"But I have to think. I have all the people in the world in my brain, and still I am not able to think. This power should have come to someone able to take advantage of it."

He went into the Plugged

Nickel Bar, but the man on duty knew him for a restricted person from the filter center, and would not serve him.

He wandered disconsolately about the city. "I know the people in Omaha and those in Omsk. What queer names have the towns of the earth! I know everyone in the world, and when anyone is born or dies. And Colonel Cooper did not find it unusual. Yet I am to be on the lookout for things unusual. The question rises, would I know an odd thing if I met it?"

AND then it was that something just a little bit unusual did happen, something not quite right. A small thing. But the colonel had told him to report anything about anything, no matter how insignificant, that struck him as a little queer.

It was just that with all the people in his head, and the arrivals and departures, there was a small group that was not of the pattern.

Every minute hundreds left by death and arrived by birth. And now there was a small group, seven persons; they arrived into the world, but they were not born into the world.

So Anthony went to tell Colonel Cooper that something had occurred to his mind that was a little bit odd.

But damn-the-dander-headed-two-and-four-legged-devils, there were the kids and the dogs in the street again, yipping and hooting and chanting:

"Tony the tin man. Tony the tin man."

He longed for the day when he would see them fall like leaves out of his mind, and death take them.

"Tony the tin man. Tony the tin man."

How had they known that his father was a used metal dealer?

Colonel Peter Cooper was waiting for him.

"You surely took your time, Anthony. The reaction was registered, but it would take us hours to pin-point its source without your help. Now then, explain as calmly as you can what you have felt or experienced. Or, more to the point, where are they?"

"No. You will have to answer me certain questions first."

"I haven't the time to waste, Anthony. Tell me at once what it is and where."

"No. There is no other way. You have to bargain with me."

"One does not bargain with restricted persons."

"Well, I will bargain till I find out just what it means that I am a restricted person."

"You really don't know? Well, we haven't time to fix that stubborn streak in you. Quickly, just

what is it that you have to know?"

"I have to know what a restricted person is. I have to know why the children hoot 'Tony the tin man' at me. How can they know that my father was a junk dealer?"

"YOU had no father. We give to each of you a sufficient store of memories and a background of a distant town. That happened to be yours, but there is no connection here. The children call you Tony the Tin Man because (like all really cruel creatures) they have an instinct for the truth that can hurt; and they will never forget it."

"Then I am a tin man?"

"Well, no. Actually only seventeen percent metal. And less than a third of one percent tin. You are compounded of animal, vegetable, and mineral fiber, and there was much effort given to your manufacture and programming. Yet the taunt of the children is essentially true."

"Then, if I am only Tony the Tin Man, how can I know all the people in the world in my mind?"

"You have no mind."

"In my brain then. How can all that be in one small brain?"

"Because your brain is not in your head, and it is not small. Come, I may as well show it to you; I've told you enough that it

won't matter if you know a little more. There are few who are taken on personally conducted sight-seeing tours of their own brains. You should be grateful.

"Gratitude seems a little tardy."

They went into the barred area, down into the bowels of the main building of the center. And they looked at the brain of Anthony Trotz, a restricted person in its special meaning.

"It is the largest in the world" said Colonel Cooper.

"How large?"

"A little over twelve hundred cubic meters."

"What a brain! And it is mine?"

"You are an adjunct to it, a runner for it, an appendage, inasmuch as you are anything at all."

"Colonel Cooper, how long have I been alive?"

"You are not."

"How long have I been as I am now?"

"It is three days since you were last reassigned, since you were assigned to this. At that time your nervousness and apprehensions were introduced. An apprehensive unit will be more inclined to notice details just a little out of the ordinary."

"And what is my purpose?"

They were walking now back to the office work area, and Anthony had a sad feeling at leaving his brain behind him.

"This is a filter center, and your purpose is to serve as a filter, of a sort. Every person has a slight aura around him. It is a characteristic of his, and is part of his personality and purpose. And it can be detected, electrically, magnetically, even visually under special conditions. The accumulator at which we were looking (your brain) is designed to maintain contact with all the auras in the world, and to keep a running and complete data on them all. It contains a multiplicity of circuits for each of its three billion and some subjects. However, as aid to its operation, it was necessary to assign several artificial consciousnesses to it. You are one of these."

THE dogs and the children had found a new victim in the streets below. Anthony's heart went out to him.

"The purpose," continued Colonel Cooper, "was to notice anything just a little bit peculiar in the auras and the persons they represent, anything at all odd in their comings and goings. Anything like what you have come here to report to me."

"Like the seven persons who recently arrived in the world, and not by way of birth?"

"Yes. We have been expecting the first of the aliens for months. We must know their area, and at

once. Now tell me."

"What if they are not aliens at all. What if they are restricted persons like myself?"

"Restricted persons have no aura, are not persons, are not alive. And you would not receive knowledge of them."

"Then how do I know the other restricted persons here, Adrian and Wellington, and such?"

"You know them at first hand. You do not know them through the machine. Now tell me the area quickly. The center may be a primary target. It will take the machine hours to ravel it out. Your only purpose is to serve as an intuitive short-cut."

But Tin Man Tony did not speak. He only thought in his mind — more accurately, in his brain, a hundred yards away. He thought in his fabricated consciousness:

"The area is quite near. If the colonel were not burdened with a mind, he would be able to think more clearly. He would know that cruel children and dogs love

to worry what is not human, and that all of the restricted persons are accounted for in this area. He would know that they are worrying one of the aliens in the street below, and that is the area that is right in my consciousness.

"I wonder if they will be better masters? He is an imposing figure, and he would be able to pass for a man. And the colonel is right: The Center is a primary target.

"Why! I never knew you could kill a child just by pointing a finger at him like that! What opportunities I have missed! Enemy of my enemy, you are my friend."

And aloud he said to the colonel:

"I will not tell you."

"Then we'll have you apart and get it out of you mighty quick."

"How quick?"

"Ten minutes."

"Time enough," said Tony, for he knew them now, coming in like snow. They were arriving in the world by the hundreds, and not arriving by birth.

— R. A. LAFFERTY

THE FEELING

If this story holds true in real practice, it may reveal something about us that we've never known.

By **ROGER DEE**

Illustrated by **GAUGHAN**

"**W**E'RE just starting on the first one — Walraven, ship's communications man," Costain said, low-voiced. "Captain Maxon and Vaughn have called in. There's been no word from Ragan."

Coordinator Erwin took his

seat beside the psychologist, his bearing as militarily authoritative in spite of civilian clothing as the room's air was medical.

"Maybe Ragan won't turn up," Erwin said. "Maybe we've still got a man out there to bring the ship back."

Costain made a quieting ges-

ture, his eyes on the three-man psych team grouped about Walraven's wheeled reclining chair. "They've given Walraven a light somnolent. Not enough to put him out, just enough to make him relive the flight in detail. Accurately."

The lead psych man killed the room's lighting to a glow. "Lieutenant Walraven, the ship is ready. You are at your post, with Captain Maxon and Lieutenants Vaughn and Ragan. The first Mars flight is about to blast off. How do you feel?"

Walraven lay utterly relaxed, his face dreaming. His voice had the waning sound of a tape running down for lack of power.

"Jumpy," he said. "But not really afraid. We're too well conditioned for that, I guess. This is a big thing, an important thing. Exciting."

IT HAD been exciting at first. The long preparation over, training and study and news interviews and final parties all dreamlike and part of the past. Outside now, invisible but hearteningly present beyond the ship's impermeable hull, the essential and privileged people waiting to see them off. The ship's power plant was humming gently like a giant, patient cat.

Captain Maxon passed out muscle-relaxant capsules. The

total boneless relaxation that was their defense against acceleration came quickly.

The ship was two hours out, beyond lunar orbit and still accelerating, when, trained for months against the moment, set each about his task. Readings occupied Maxon and Vaughn and Ragan while Walraven checked his communications and telemetering gear.

It was not until the transmitter slot had licked up its first coded tape — no plain text here, security before even safety — and reported all well, the predicted borne out, that they became aware of the Feeling.

The four of them sat in their unsqueaking gimbaled seats and looked at each other, sharing the Feeling and knowing that they shared it, but not why. Vaughn, who was given to poetry and some degree of soul-searching, made the first open recognition.

"There's something wrong," he said.

The others agreed and, agreeing, could add nothing of explanation to the wrongness. Time passed while they sat, seeing within themselves for the answer — and if not for answer, at least for identification — but nothing came and nothing changed except that with time the steady pressure of the Feeling grew stronger.

Vaughn, again, was first to react to the pressure. "We've got to do something." He twisted out of his seat and wavered in the small pseudogravity of the ship's continuing acceleration. "I've never in my life felt so desolate, so—"

He stopped. "There aren't any words," he said helplessly.

Less articulate than Vaughn and knowing it, the others did not try to help find the words. Only Ragan, professional soldier without family or close tie anywhere in the world, had a suggestion.

"The ship's power plant is partly psionic," Ragan said. "I don't understand the principle, but it's been drilled into us that no other system can give a one-directional thrust without reaction. The psi-drive is tied into our minds in the same way it's tied into the atomic and electronic components. It's part of us and we're part of it."

Even Maxon, crew authority on the combination drive, missed his meaning at first.

"If our atomic shielding fails," Ragan explained, "we're irradiated. If our psionics bank fails, we may feel anything. Maybe the trouble is there."

Privately they disagreed, certain that nothing so disquieting as the Feeling that weighted them down could be induced even

by so cryptic a marriage of dissimilar principles as made up the ship's power plant. Still it was a possible avenue of relief.

"It's worth trying," Maxon said, and they checked.

And checked, and checked.

"WE WORKED for hours," Walraven said, "but nothing came of it. None of us, even Maxon, knew enough about the psi-drive to be sure, but we ended up certain that the trouble wasn't there. It was in us."

The drug was wearing thin, leaving him pale and shaken. His face had a glisten of sweat under the lowered lights.

The lead psych man chose a hypodermic needle, looked to Erwin and Costain for authority, and administered a second injection.

"You gave up searching," he said. "What then, Lieutenant?"

"We waited," Walraven said.

He relaxed, his face smoothing to impersonal detachment as his mind slipped back to the ship and its crew. Watching, Costain felt a sudden deep unease as if the man's mind had really winged back through time and space and carried a part of his own with it.

"There was only one more possible check," Walraven said. "We had to wait two days for that."

The check was Maxon's idea,



simple of execution and unarguable of result. At halfway point acceleration must cease, the ship rotate on its gyros and deceleration set in. There would be a period of waiting when the power plant must be shut off completely.

If the Feeling stemmed from the psi-drive, it would lift then.

It did not lift. They sat weightless and disoriented while the gyros precessed and the ship swung end by end and the steady pressure of the Feeling mounted up and up without relief.

"It gets worse every hour," Vaughn said raggedly.

"It's not a matter of time," Maxon said. "It's the distance. The Feeling grows stronger as we get farther from home."

They sat for another time without talk, feeling the distance build up behind them and sensing through the unwindowed hull of the ship what the emptiness outside must be like. The ship was no longer an armored projectile bearing them snugly and swiftly to a first planetfall. It was a walnut shell without strength or direction.

In the end they talked out their problem because there was nothing else they could do.

"We're men," Maxon said, not as if he must convince himself but as if it were a premise that had to be made, a starting point

for all logic. "We're reasoning creatures. If the trouble lies in ourselves we can find its source and its reason for being."

He picked Vaughn first because Vaughn had been first to sense the wrongness and because the most sensitive link in a chain is also predictably its weakest.

"Try," Maxon said. "I know there are no words to describe this thing, but get as close as you can."

VAUGHN tried. "It isn't homesickness. It's a different thing altogether from nostalgia. It's not just fear. I'm afraid — not of any *thing*, just afraid in the way a child is afraid of falling in his dreams, when he's really had no experience with falling because he's never fallen more than a few inches in his life . . . When I think of my wife, it's not the same at all as if I were just in some far corner of the Earth with only land and water between us. Even if I were marooned on an uncharted island somewhere with no hope of seeing home again, I wouldn't feel this way. There wouldn't be this awful *pulling*."

Ragan agreed with Vaughn that the Feeling was essentially a *pull*, but beyond agreement could add nothing. Ragan had covered the world without forming a tie to hold him; one place

was as good as another and he felt no loss for any particular spot on Earth.

"I only want to be back there," he said simply. "Anywhere but here."

"I was born on a farm in New England," Walraven said. "Out of the land, like my father and his people before him. I'm part of that land, no matter how far from it I go, because everything I am came from it. I feel uprooted. I don't belong here."

Uprooted was the key for which they had hunted.

Maxon said slowly, "There are wild animals on Earth that can't live away from their natural homes. Insects — how does a termite feel, cut off from its hive? Maybe that's our trouble. Something bigger than individual men made the human race what it is. Maybe we've been a sort of composite being all along, without knowing it, tied together by the need of each other and not able to exist apart. Maybe no one knew it before because no one was ever isolated in the way we are."

Walraven had more to say, almost defiant in his earnestness. "This is going to sound wild, but I've been fighting inside myself ever since Vaughn mentioned being pulled toward home. I have the feeling that if I'd only let go, I'd be back where I belong." He

snapped his fingers, the sound loud in the room. "Like that."

No one laughed because each found in himself the same conviction waiting to be recognized. Ragan said, "Walraven's right. There's no place on Earth I care for more than another, but I feel I could be back there in any one of them" — he snapped his fingers, as Walraven had done — "as quickly as that."

"I know," Maxon said. "But we can't let go. We were sent out to put this ship into orbit around Mars. We've got to take her there."

WALRAVEN said, "It wasn't easy. The Feeling got worse as we went out and out. Knowing what it was helped a little, but not enough. We held onto each other, the four of us, to keep the group together. We *knew* what would happen if we let go."

The head psych man looked to Costain and put his needle away when Costain shook his head.

"The ship," Coordinator Erwin said sharply. "Walraven, you did put her into orbit?"

"Yes," Walraven said. "We put her into orbit and turned on the telemetering equipment—they'll be picking up her signals by now — and then we turned our backs on each other and we let go. There wasn't any feeling of motion or speed, but I felt a

fresh breeze on my face and when I opened my eyes I was standing beside a familiar stone fence on a hill above the house where I was born. You haven't told me, but the others came back, too, didn't they?"

"All but Ragan," Erwin said. His tone made Costain think wryly, *Even the military can snatch at straws*. "Maxon and Vaughn called in. But we haven't heard from Ragan."

"He wasn't left behind," Walraven said with certainty. "Ragan has no family, but he has a home. We're standing on it."

An orderly came in with an envelope for Costain, who opened it and handed the paper to Erwin. To Walraven, Costain said, "It's a cablegram from North Ireland. Ragan is back."

Erwin was still gripping the paper in his hand when he walked with Costain out of the hospital into the bright airiness of a spring day. He glared at the warm, blue sky.

"We'll find a way," Erwin said. "We've proved that we can put men on Mars. With the right conditioning, we can keep them there."

"You're a dedicated and resolute man, Coordinator," Costain said. "Do you really suppose that any amount of conditioning could fit you to do what those boys failed at?"

The long moment of considering that passed before Erwin answered left a fine sheen of sweat on his face.

"No," Erwin said.

— ROGER DEE



Borax for brownies and the moonwatcher who missed — the crinkled getter and the Canaveral sneeze — these are the things that make up —

Tandy's Story

By THEODORE STURGEON

Illustrated by WALKER

THIS is Tandy's story. But first, take a recipe: the Canaveral sneeze; the crinkled getter; the Condition adrift; the analogy of the Sahara smash; Hawaii and the missing moon; and the analogy of the profit-sharing plan. There is no discontinuity here, nor is the chain more remarkable than any other. They are all remarkable.

If this were your story, it might compound from the recipe

of a letter that never got mailed, a broken galosh clip, a wistful memory of violet eyes, the Malthusian theory and a cheese strudel. However, it is Tandy's.

We begin then with the Canaveral sneeze, delivered by a white-gowned, sterile-gloved man in a germ-free lab, as gently he lifted a gold-plated twenty-three-inch sphere into its ultimate package. Not having a third hand at the time, he was unable to

cover his mouth in time. *Gesundheit.*

And now to Tandy's story.

TANDY'S brother Robin was an only child for the first two years of his life and he would never get over it. Noël, her sister, was born when Tandy was crossing that high step into consciousness called Three Years Old. (Timothy, the other brother, wasn't until later. Anyway, this

isn't his story. This is Tandy's story.)

When Tandy was five, then, it was clear to her that while the older Robin was bigger, stronger, more knowledgeable and smarter (he wasn't, but she hadn't been around long enough to learn that yet) and could push her around at will until she yelled for help—while, to put it another way, she was attacked from above—the sister below was excavating the ground under her feet. Noël unaccountably delighted everyone else, even Robin, for she was a blithe little bundle. But her advent necessarily drained off a good deal of parental attention from Tandy, who lost the household position of The Baby without gaining Robin's altitude as The Firstborn. It didn't seem fair. So she did what she could about it. She yelled for help.

It wasn't any ordinary yell, if an ordinary yell is a kind of punctuation or explosion or communicative change-of-pace. There were times when it wasn't, except for its purpose and figuratively, a yell at all. It was at times a whine — a highly specialized one, not very loud but strident, that could creep in and out of her voice twice in a sentence. Or it might be merely a way of asking for something, and asking and *asking*, so that she couldn't even hear a "yes" and was not

aware of the point at which it furiously turned to a "no." Or perhaps an instantaneous approach to tears, complete with filling eyes and twisting mouth, where anyone else might use the mildest emphasis: "It was Tuesday I wore the blue dress, not Monday," and the equally instantaneous disappearance of the tears (which, somehow, was the annoying part). Or utter, total, complete, unmoving non-response to an order through the third, the fourth, the fifth repetition, and then a sudden shattering screech: "I heard you!"

Tandy had, in short, a talent approaching genius for getting under one's skin and prickling.

This established, it is mere justice to all concerned to report also that Tandy was loved and lovable as well. Her parents took the matter of child-rearing seriously. The reasons (over and above innate talent) for Tandy's more irritating proclivities were quite known to them. And Tandy, long-lashed, supple, with hair the color of buckwheat honey and golden freckles spattered across her straight perfect nose, was an affectionate child, and her parents loved her and showed it very often.

And this did not alter one whit her position as No. Two Child, her distaste for the rôle, her yelling for help and therefore, for all

the love, the concurrent war of abrasion.

There were times when she and Robin got along as contemporaries and splendidly. And of course almost anyone could get along with the biddable Noël. But these times were more wished-for than often. When they occurred, they were so welcome that one is reminded of the lady with the perennially battling children who called out into an unwonted silence one mid-morning: "What are you kids doing?" From under the porch a young voice replied, "Burning the wrappers off these razorblades with matches, Mommy." "That's nice," she replied, "Don't fight . . ."

At such times, in short, they could get away with practically anything, and Tandy's usual occupations were staged alone and away from people.

Yet never completely away.

PERHAPS as a result of her crowded loneliness, she liked to be on the outside looking in or on the inside looking on, but not of the group. When the neighborhood gathered on the lawn for hide-and-seek or kickball, and the game was well started, Tandy would be seen forty paces off, squatting by the driveway, making a cake-sized cake of earth, perhaps, and decorating it with pebbles and twigs;

or acting out some elaborate dialogue with her doll Luby (whether or not Luby was with her,) bowing and mugging and murmuring the while in a number of voices. Tandy spoke beautifully. She had since the beginning, and her command of idiom and tone was too expert to be cute. There were times when it was downright embarrassing, as when the father overheard her demanding of a peonybush, with precisely his own emphasis, "*What the hell are you, hypnotized?*" There were times when these performances at the edge of the activity of others attracted considerable attention. She was surprisingly deft for a five-year-old, being one of these kids who from birth, apparently, can with a single movement draw a closed figure so that you are unable to see where the ends of the line join, and whose structures with blocks never seem jumbled, but quite functional (as indeed, to the fantasy of the moment, they are). Once in a while she drew quite a gallery of the curious with, say, six careful rows of red Japanese maple leaves and deep pink trumpet-vine blossoms alternating on the lawn, before which she would posture severely, murmuring under her breath and pointing to one and another with a stick. At such times she seemed quite oblivious to six or eight

children magnetically drawn round her, who watched mystified. Sometimes she would answer and sometimes she would not. Sometimes it would take drastic measures, as for example Robin's shuffling through the careful arrangement of leaves and petals, before it could be learned (the hard way, in this case) that she was teaching school, that the leaves were boys and the trumpets girls, and that she was now going to tell Mama to throw Robin's Erector set into the garbage, and a good deal more — precisely what more, no one knew, for by then the screech would have destroyed intelligibility.

THE CRINKLED getter was placed near the base and inside the metal envelope of an RF amplifier tube in the telemetry circuit of the big rocket's second stage. The getter's function was to absorb the residual gases in the tube and harden the vacuum therein. Its crinkle was an impurity, but so slight as to cause no trouble until the twelfth hour of countdown. Then rarefied gas began to ionize and *foop!* discharge and ionize and *foop!* discharge again.

To replace the tube required that they go back to twenty-four hours and start the countdown again. The extra twelve hours de-

lay enabled sneeze-mist to dry on the sphere, and certain bacilli to die, and others to encyst, and a smear of virus, sub-microscopically, to turn to a leathery, almost crystalline jelly.

TANDY lived in a house in the woods which in turn were in, or nearly in, the very middle of the upstate village, a pleasant accident derived from the land-grabbing, land-holding traditions of three neighbors' fathers, and grandfathers, and great-grandfathers. The three acres on which Tandy's house stood were surrounded by perhaps twenty acres of other people's woods and a small swamp; yet the house was barely ten minutes on foot away from the village green.

Somewhere, then, in house or garden, lawn, swamp or wood, the brownie came to Tandy.

It had that stuffed-toy, left-out-in-the-rain aspect possible only to stuffed toys which have been left out in the rain. It was about nine inches high. Its clothing, or skin (properly, the outside layer was both), was variously khaki-colored and mottled green. The appellation "brownie" derived from what appeared to be a tapered hat, though once the father was heard to remark that it was the damn thing's head that was pointed. The arms and legs were taut and jointless, and looked

like sausages on which lived lichens. For hands there were limp yellow-pink leaves of felt, and for feet, what might have been the model for a radical cartoonist's rendering of the knotted moneybags of Old Moneybags. As for a face—well, it was a face. That's all. Black disks for eyes, so faded you couldn't tell whether they were supposed to be open or closed, a ditto-mark for a nose and a streak below which may have been some clumsy whimsy—a smile up on the right scowling downward to the left—or a streak of dirt.

In the light of all that happened, one would think there would be a day of discovery, an hour of revelation, an open-the-package kind of Event. But there wasn't.

The brownie was kicking around the place for weeks, months maybe; they had all seen it, kicked it aside, used it as a peg for that parental sigh, "Got to clean out all this junk sometime . . ." Robin dug a grave for a dead cat once and then couldn't find the cat, so buried the brownie instead. Noël had taken it to bed with her once, and the mother had thrown it out the window during the night. It was one of those things, along with the bent but not quite broken doll carriage, the toy electric motor with the broken brush and

Noël's wind-up giraffe, which needed new ears. So the brownie wove its indistinct thread into the tapestry of days, in and out of the margin between toys and trash.

The exact beginnings of Tandy's preoccupation with the brownie were also vague, and even when first her interest was total, it made little impression, because Tandy was . . . well, for example, the caterpillar. Once when she was four she caught a tent caterpillar and kept him in a coffee can for two days and named him Freddy and fed and watered him and even covered him at night with a doll blanket. During the second night she awoke crying, agonizing after Freddy, inconsolable until the can was found and brought and shown to her. Her grandmother, who was around at the time, said sagely, "*That* child needs a pet!" and everybody nodded and conversed about pets. The next morning Tandy put Freddy on the flagstones out front "so he could go for a walk." He went for a walk. Altogether.

For half a day people tiptoed around Tandy as if she were full of fulminate and had dined on dynamite.

But not only did she not ask about Freddy, she never even mentioned him. She stumbled over the can and almost fell and

kicked it away and did not even glance at it. Thereafter Tandy's preoccupations were beyond judgment or prediction; they might be blood-sistership, like the affair with her doll Luby Cindy, or they might be passing passions like Freddy. The brownie . . . well, people became aware not that Tandy had a new one, but that for some indeterminate time she had been orbiting around this artifact. And when Tandy orbited, so did the cosmos or it—all of it—would be accountable to Tandy.

MENTION of orbit brings up the Condition adrift. No other name for it will do, and even that is inaccurate. It was . . . well, matter; but matter in such a curlicue, so self-involved in stress, that Condition is a better word than Thing. It had been made where it was useful to its makers, and one might say it had a life of its own though it had not used it in some millions of megayears. By a coincidence as unlikely as the existence of the reader of this history or a world to read it on, but as true, the Condition adrift found itself matching course and speed with the golden ball in space. It contacted, interpenetrated, an area of the golden surface four by eight microns, and happily found itself a part of organic material

—a dried and frozen virus and two encysted bacteria. The latter it dissected and used. The former it activated, but in a wild reorganizing way so radical its mammy amino wouldn't have recognized it. The Condition became then a Thing (without losing its conditional character) and it scored itself across and divided. And divided again. And that was the end of that, for it had used up its store of a certain substance too technical to mention, but as necessary as number. Such was the nature of this organism that once alive it must grow, but if it could not grow it must cease dividing, and if it ceased dividing it must undergo an elaborate, eons-long cycle before it could come round to being again a mere Condition adrift. But unless it could begin that cycle it must die.

By means known to it, it flowed through the lattices of the sputtered gold, quartered the sphere, searched and probed, and at last stopped.

It turned its attention to the great globe beneath.

SOME TIME or other—it was in the early spring, though Tandy herself could never remember just when—she got the brownie a house. Actually it was an old basketwork fishing creel she had found behind the garage,

but the one thing one learned most quickly about Tandy was that things were what she said they were. Anything else was only your opinion, to which you were not entitled. And there was a certain justice in her attitude, for it did not take long for such an object to lose its creelship and become what she said it was.

She set it against the back wall of the garage, in the tangled ground between the wall and the old stone fence, under the shelter of the adjoining carport — for a wall-less shelter had been hung to the side of the garage to accommodate the second car they hoped for some day. It was a nice sort of outdoors-indoors place. She drove a row of stakes in front of the creel and on it placed a rectangle of discarded plywood—a miniature of the carport—but as time went on she added walls. First they were cardboard. The creel was the bedroom and the rest of it was the living room.

At Easter she saved her basket and it was a bed. She got the brownie up every morning and put him to bed every night, and on weekends he took his nap too.

She fed him.

She had a small table—not a cream cheese box, a table!—for him, and on the table were clamshell plates and an acorn cup,

and a pill-bottle—strike that; a flower vase — which, from the time spring first started to show her colors, she kept supplied. But before that she was feeding him snow ice-cream, sawdust cereal, mushroom steaks, and wooden bread. She talked to him constantly, sometimes severely. And in that unannounced way of hers, she spent all her free time with him.

No one noticed it especially, in March and almost through April, except perhaps to be grateful for the quiet. A minute spent with the brownie was a minute without Tandy's moaning, whining, sobbing, screeching or otherwise yelling for help. Of course, there had to be minutes spent away from the brownie. Most of them were at school.

SCHOOL was kindergarten, of course, and it may have been that there was just too much of it for Tandy. Due to factors of distance and necessities of school buses, the kindergarten was not, as is usual for such establishments, a nine-to-noon affair, but instead lasted for the whole school day, ending at three. In spite of a long rest period after lunch, it was the opinion of many that this was asking too much of five-year-olds. It may have been the teacher's opinion as well. It was certainly Tandy's opinion.



Her first report card was not resoundingly good, and her second one was somewhat worse. Neither was bad enough to cause concern, but the parents were jolted by the specific items on which she scored worst. Beside the item *Speak clearly and distinctly* the teacher had marked the symbols which meant "Hardly ever," and beside *Knows right from left* was the mark for "Seldom." The parents looked at one another in amazement, and then the father said, "That can't be right!" and the mother said, "That can't even be Tandy. She's given her the wrong report card!"

But she had not, as the mother found out by visiting the teacher at school one afternoon.

The mother, going in like a lion, came out numb with awe for the teacher's forbearance, and for the second time (Robin had done this to her once, on another matter) suffering that partly amused but nonetheless painful experience of learning how little one knows of one's own. Or as the bemused father put it, "It's a wise father who knows his own child." For, fully documented and with inescapable accuracy, the teacher had described a Tandy they never saw around the house—a Tandy recalcitrant, stubborn, inactive, disobedient and, most incredible of all, talking incessant baby talk. The teacher's ability

to see below the surface, to know that the child wasn't *really* as bad as all that, helped the overall picture not at all, because it became manifest that Tandy did not know right from left on purpose; that she spoke baby-talk by choice; that she fell from grace in matters of handkerchiefs and handwashing not because she forgot, but because she remembered.

Above and beyond everything else was that the degree of this behavior was by no means excessive. She had never once been subjected to the routine punishment of being made to stand out in the hall. She could always stop just short of outright delinquency. She was the foot that drags, the pressure which is not quite toothache, the discomfort which is not yet heartburn.

The parents conferred unhappily with each other and then with Tandy, who answered every "Why?" with "I just—" and an infuriating shrug, rolling upward of the eyes, flinging the hands out and down to flap helplessly against the thighs. It was the mother's exact gesture, which of course is precisely why it was infuriating.

So the father, his anger at last arriving, drew a bead on Tandy with his long forefinger and declared, "This is a *rule*. No more brownie."

THE analogy of the Sahara smash is the anecdote of one of the desert crashes of a B-17 in Africa. Unlike tragic others, this one had a happy ending, and this is why: the crew made no attempt to trek out of there in a body, but instead assigned one man to march out and get help. The significant thing is that he carried with him not only a compass, but almost their entire water supply. The rest of the crew rationed themselves down to three table-spoonsful a day and lay as still as possible buried in the sand under the broken fuselage. So it was that the organism on the golden satellite told off one of itself to ooze patiently out to the tip of one of the whip antennae; then, by means known to it—for as related, it contained unheard-of stresses, neatly curled up and intertwined — it bent the whip double and released it, and out into the emptiness, in the opposite direction from orbital motion, was snapped this infinitesimal fleck of substance. It tracked along with the satellite for a long time, but separating always, until it was lost in the glittering emptiness. But with it it carried all but a fraction of the organic substance available to the whole. Three parts were left quiescent, waiting moveless to die or be saved. The fourth fell toward

Earth, which took — as long as it took . . .

NOW THERE is a school of control-by-giving (hits in the head or ice cream) and a school of taking away, and the father, when aroused, tended to the latter. In extreme cases a child can learn never to express preference or fondness for anything lest he qualify it for the disciplinary list. This was not that extreme. It would not be because of the mother, who despised this kind of thing and whose reactions were very fast. One glimpse of Tandy's stricken face at this "No more brownie!" dictum and she added, "... if you go on making people unhappy." And, ignoring the father's stifled cry of rage, she went on, "Now you run on out and talk it over with the brownie."

Tandy did as she was told, leaving her parents to instruct one another about child-rearing, and communed with the brownie; and perhaps this was the real beginning of it all.

For she had done a great deal for this brownie. Now, for the first time, she had made it clear that there were things that needed doing for her.

If things changed at school, it was naturally not immediately apparent at home. Things at home did not change. That is, the busy-ness with the brownie con-

tinued to use up the whining time, the screeching time, the opportunities for chance medley and battle royal with Noël and Robin.

One weekday morning the mother had hung out a line-full of clothes and, being face to face with the garage, was moved to go round and see how Tandy was coming along with Project Brownie. She hadn't seen it for some weeks. She recalled vaguely that the cardboard sides had been replaced, and she knew that the tiny flower-vase had borne violets, and baby's breath, and alysum. And she recalled the time she had turned out her sewing basket and the kitchen gadget drawer and rearranged them, all in one morning, and had given the detritus to Tandy for her brownie. Time was when Tandy would have gathered up such a treasure-trove with a shrill shriek of joy, would have fought selfishly and jealously with the other children over the ownership of every ribbon-end, every old cork and worn-out baby-bottle nipple, only to leave bits and pieces exasperatingly all over the house and yard within the next couple of hours. But this time she had spread the whole clutter out on the living room table, darted her deft small hands in and out of the pile, and in a few seconds had selected the blunt end of a broken nutpick,

the china handle of a Wedgewood pitcher, a small tangle of pale blue nylon-and-wool yarn, and a brass wing-nut. "He wants these," she said positively. "That's all?" the mother had asked, astonished. And Tandy had replied, precisely mimicking the father, "Now what would a brownie want with all that junk?" It wasn't so much the modesty of Tandy's wants that had surprised the mother. It was the absolute and unhesitating certainty with which she chose.

Thinking of this, the mother rounded the garage and saw the brownie's house.

THE OLD creel was still the bedroom, but the rest of the structure had vastly altered. The cardboard walls had been replaced with wood—some ends of shiplap that used to lie under the sleeping-porch — and since the mother had heard nothing of any carpentry by or for Tandy, she could see that the stony ground had been carefully and laboriously dug to various depths so that the little boards, buried upright, could present an even eave-line. On one side were two small square window-openings, glazed with cellophane; on the other was a longer opening like a picture-window. The roof, still the cast-off piece of plywood, had been covered with a layer of earth, and smoothly, brilliantly, it was

thatched with living star-moss.

The mother knelt to look inside. The floor of the house was covered with a blinding-white powder of some kind. She took a pinch of it and felt it and smelt it and even tasted it a little without recognizing it; she'd ask Tandy later. The table was covered with a cloth which had once been part of a dust-rag which had once been one of the mother's dresses; it was spotlessly clean—it seemed even to have been ironed—and was so folded and placed that the torn edges were out of sight. On the table was the pill-bottle flower-vase, just half full of clean water, in which stood a single stem and blossom of bleeding-heart. The effect was simple, tasteful, sort of Japanese-y. And further inside was the creel bedroom, with an oval dresser (despite the neat cloth cover and skirt, she recognized the lines of an inverted sardine tin) over which was the mirror which had been in Tandy's birthday pocketbook, and before which was a handsome little round chair, made of a bit of cardboard glued to a large wooden threadspool, also covered and skirted with a scrap of material matching the dresser. And in bed was the brownie.

The mother had to go down almost flat on her stomach to see what it was which covered his

pillow so whitely, so clean and thick-textured. A luxury material indeed—dogwood petals. He was covered with a quilt (she couldn't bring herself to call it one of her old pot-holders) and he was sleeping.

She chuckled at herself. How were those round black painted eyes to look open or closed? . . . and she looked again and thought they were open. She almost said "Excuse me!" and she actually did blush at disturbing his nap. Wagging her head, she backed away and stood up.

Between her and the old stone fence was usually a carpet of weeds. There was no pretense of making lawn or garden out of the stony soil here. Actually, the front lawn had been grown on trucked-in topsoil. Yet—

Yet this area was now planted. A row of early marigolds between the brownie's house and the one-time weed-bed. And, from there to the fence, a dark-green plant, low, spidery, in rows. She did not recognize the plant except perhaps as just another weed.

Speechless, she returned to the house.

TROUBLE on the school bus that day; Robin came home bloody and triumphant.

Mother had meant to talk about brownie, but it was some time before events sorted themselves

out. It appeared that a "big kid" had started chanting the well-known chant about "I seen Tandy's underwear," and Robin had punched him and gotten clobbered for it. The bus monitor broke it up, and in spite of Robin's having gotten the worst of it, he came home bursting with pride and Tandy awash with admiration.

The mother felt both. It was the first time Robin had ever brought arms to bear in defense of his sister, and after the question and cross-question and verbal jigsaw-puzzling which is always necessary to get an anecdote out of a child, and the awkward telephone conversation with the parent of the party of the other part, she found herself alone not with Tandy, but with Robin, Tandy having escaped to her pre-occupation behind the garage.

"Robin, I don't like fighting but I must say, I like the way you took up for Tandy."

"Aw, she's okay," said Robin, not noticing how the mother of what he usually called that little tattletale, that squeaky wheel, that pushfaced squint-eyed bow-legged stoop . . . how the mother of this repulsive sibling let drop her jaw, and slumped into a chair.

She was still sitting there, trying to recover her strength, while Robin pedalled away on his bicycle and while, a moment

later, Tandy came in. She came tottering, mounded down with clean laundry. The mother leapt up to help her get the screen door open and then had to sit down again. "Tandy!" she cried.

"Well, they was all dry, Mommy, so I brought them in."

"They were," said the mother weakly.

"Sure they were. Mommy . . ."

She was going to ask for something. If it was a diamond tiara, the mother thought, she'd get her one if she had to murder for it. "Yes, honey."

"Mommy, would you teach me how to set the table? I could do it every day while you get dinner."

So for the time being the mother utterly forgot to ask any questions about the brownie.

THE mother thought about the brownie a good deal, although—perhaps it was a remnant of her comical embarrassment at having caught him in bed—she seldom went back there to look at the house. But one afternoon, thinking about the neatness of the little table, the dresser and chair and mirror, the shining white floor (what was that stuff, anyway?) it occurred to her that the three-year-old Noël would find that arrangement back there irresistible, and she shuddered at the mental picture of Noël belly-

ing delightedly into the careful structure, churning up the white floor, leaning too hard on the cheese-box table, tumbling the mossy roof. "Noël . . ."

"?"

"Noël, we've all got to be specially careful of Tandy's brownie house. You wouldn't ever play with it unless she asked you to, would you?"

Noël gravely shook her helmet of tight curls. "I not allowed."

The mother tipped her head to one side and regarded the child. There were a number of things Noël was not allowed to do which she . . . "But all the same, you won't go back there by yourself."

"I not *allowed*," said Noël with great emphasis, and simultaneously the mother thought (a) that she'd like Tandy's formula for not allowing if it worked like this and (b) let's keep an eye on Noël all the same.

It was demonstrated, about ten days later, just how unnecessary it was to stand guard over the brownie's house. It was a Saturday. The father was home, Robin was off somewhere on his bicycle, and Tandy was slaving happily away behind the garage. The father, from the front of the house, called out, "Do you know what happened to the hand cultivator?"

The mother's photographic

memory saw it lying beside a row of green. Oh, of course. "Noël, darling, run out behind the garage and get the cultivator. Tandy'll show you."

"Pleadingly, "No, Mommy!"

"Noël!"

"I not *allowed* to!" said Noël, and incredibly, for she was a cheerful child, she began to cry.

The first impulse was to lay on some muscle and authority, the next a deep sympathy for the little one. "Oh . . . Noël . . ."

"I gon' *hide*!" shrieked Noël in something very like Tandy's special rasping shriek; and go she did, hide she did, ineffectively (the mother knew she was in the baby's blue chiffonier) but with great purpose. Apparently her "not allowed" was big enough to make it worth while defying the giants. Sighing, the mother went to the back door. "Tandy!"

"Yes, Mommy . . ."

"Bring Daddy's cultivator to him, he needs it!"

"The handle-fingers?"

"That's right, dear."

She watched Tandy, in a yellow dress, bounding from behind the garage and heading for the front lawn. She waited until she saw the flash of yellow again and called her to the back steps.

"Tandy, you must have been terribly rough to Noël about not playing with your brownie. She's afraid to go back there because

you said she's not allowed."

"No, I didn't, Mommy."

"Tandy!" (The explosion of the name alone was the mother's favorite curb.)

FOR the first time in many weeks Tandy began to pucker up, the eyes grew bright, the mouth trembled. "I reely, reely, reely . . ."

Moving on impulse, the mother stepped forward and took Tandy's wrist. "Shh, honey. Take me out and show me what you're doing."

Tandy immediately shut it all off and they went back of the garage, Tandy skipping. The mother was prepared to be complimentary as one normally is, multiplied by the wonder of what she had seen before; but she was not prepared for what she found.

One wall had been removed from the little house, the shiplap scraps unearthed and tossed aside. The roof was still supported by the other side and the top of the creel. A heap of flat stones lay near, and a small sack of ready-mixed concrete. A seed-flat was doing service as a miniature mortar-board, and a discarded pancake-turner as a trowel.

Tandy was composedly replacing the wooden wall with one of fieldstone.

"Tandy! Why, I never . . . who taught you to do this?"

"I asked Mr. Holmes-the-gym-teacher." (Tandy's teachers' names were all compound like this.)

"But—but . . . where did you get the concrete?"

"I bought it. I saved my 'low-ance money and all my ice-cream money. That's all right, isn't it? I didn't go into town, Robin did on his bicycle." She slopped water from a toy sand-bucket and began to mix the concrete.

"Robin never told me," said the mother faintly.

"I guess you never asked him, Mommy."

"I guess I never." The mother wet her lips. "Tandy, how did you ever think of all this?"

"I didn't think of it. I just did it, that's all." She picked up a slather of cement and ladled it on to the top course of her new wall. "You wouldn't expect a brownie to go on living in a ol' wood house, now, would you?" she demanded in grandmotherly tones.

"No, I—I suppose not . . . Tandy, I saw the dresser and the little chair and the tablecloth. They're lovely. Tandy, did someone iron the tablecloth for you?"

"Oh, it irons itself," said Tandy. "You wash it an' rinse it and stick it on a window an' when it's dry it's ironed."

"What's that lovely white floor?"

TANDY selected and hefted a stone, then carefully laid it on the course. "Borax," she said.

"And you bought that with your ice-cream money too?"

"Sure. Brownies like borax and the little lumps off roots and that stuff there." She pointed to the rows of dark-green weed.

"What is that?"

"The brownie's farm."

"I mean, the plant."

"I don't know what the real name is. I found it through the woods there, there's a whole patch. I call it brownie spinach. Look, over there's the lumps. It's like candy to a brownie." She pointed to a heap of roots, from some legume or other — the mother couldn't tell, for the leaves were gone; but the root-hairs had clusters of the typical nitrogenous nodules. "Tandy, how on earth do you know so much about brownies?"

Tandy gave her an impish glance. "I guess the same way you know about little girls."

The mother laughed. "Oh, but I had little girls of my own!"

Tandy just nodded: "Mm-hm."

The mother laughed again. When she left Tandy was fitting a whiskey-bottle—the three-sided "pinch" bottle — full of water, into the wall she was building, taking infinite pains to have it slant just so.

The mother wasn't laughing,

though, later when she told her husband about it. As such things occasionally do, these developments had come about invisibly to him, having shown themselves mostly when he was away during the day. He listened, frowning thoughtfully, and when the children were glued to the television set the parents went out to look at the brownie house. All he said—all he could find to say, over and over, was: "Well, how about that."

When they left he snapped off a sprig of the dark green weed and put it in his pocket.

"And she sets the table every night," breathed the mother.

AFTER she finished the field-stone house (even the roof was stone, laid over the plywood from which the mossy earth had been swept away) Tandy seemed to abandon the brownie and his house altogether. She went back to one of her earlier passions, modelling clay, and spent her time studiously working it. But not ducks, not elephants. She would make thick rectangular slabs of it, and draw, or score, deeply into it. Some of the channels she cut were deeper than others, some curved, some straight but cut with her stylus at an acute angle, so that portions were undercut. "Looks like a three-dimensional Mondrian," said the

father one night when the kids were asleep. He worked in a museum and knew a great many things, and had access to a great many more. That plant, for example. "It's *astragalus vetch*," he told his wife. "And I knew I'd read something about it somewhere, so I looked it up again. It's a pretty ordinary sort of vegetable except for some reason it has a fantastic appetite for selenium. So much so that proposals have been made to mine selenium — and you know, that's that light-sensitive element they use in TV tubes and photocells and the like — by planting the vetch where selenium is known to be in the soil, harvesting the whole plant, burning it and recovering selenium from the ash. All of which is beside the point — what on earth made the little fuzzhead pick the stuff up and plant it?"

"Brownies like it," the mother said, and smiled.

It was the very next morning that Tandy was missing from the breakfast table.

There was only a small flurry about it; the mother knew just where to look. The child was busily packing armloads of vetch and tangles of knobby roots into a hole in the solid front of the brownie house. The brownie himself sat against the garage, its face turned toward her, its not-

closed, not-open eyes seeming to watch. "I'm sorry, Mommy," Tandy said brightly, "but I'm not late for school, am I?"

"No, dear, but your breakfast is ready. What on earth are you doing to the brownie's house?"

"It isn't a house any more," said Tandy, in the tones of one explaining the self-evident to one who should know better without asking, "it's a factory." She put both hands in the hole and pushed hard. Apparently the house was baled full of weeds and roots. She daubed mortar around the opening quickly.

"Come, dear."

"Just finished, Mommy." She took a flat stone and set it into the opening, which must have been prepared for it, for it seemed a perfect fit. Another slap of mortar and she was up smiling. "I'm sorry, Mommy, but this is the day I had to do that."

"For the brownie."

"For the brownie." They went back to the house.

IN HAWAII, a specialist, who should have been but was not more than a sergeant at the missile tracking station, grunted and straightened away from the high definition screen. "Lost it." He pulled a tablet toward him, glanced at the clock, and started filling in the log.

Nobody saw the faint swift



streak as the satellite died. But if there had been a witness to that death—placed not to see faint swift streaks, but right on the scene, with a high-speed stroboscopic viewing device, he would have had some remarkable pictures.

As the golden sphere surrendered to the ravening attack of frictional heat, in that all but im-

measurable fragment of time wherein its parts became malleable, plastic, useful—they were used. Selenium from the solar cells, nitrogen from the pressurized interior, borosilicates ripped from refractory parts, were gleaned and garnered and formed and conformed. For a brief time (but quite long enough) there existed a device of



molten alloy bars and threads surrounding a throat, or gate, which was composed of a pulsing, brilliant blue non-substance.

Anything placed within this blue area would cease to exist—not destroyed in any ordinary sense, but utterly eliminated. And the laws of the universe being what they are, such eliminated matter must reappear elsewhere.

Exactly where, depends of course on circumstances.

THAT morning the mother was hanging clothes when a flash of light caught her eye. She put down her clothes-basket and went to the back of the garage.

The brownie sat with his back to the garage, staring glumly at the torn-up remnants of his "farm." The midmorning sunlight, warm and bright in this clear dry day, struck down through a gap in the trees and poured itself on and over the pinch bottle, half in and half out of the near wall of the little house. The colors were, she found by screening her vision through her eyelashes, lovely and very bright—flame-orange and white—why, the bottle itself seemed to be alight.

Or was it the inside of the little house?

There was a violent, sudden hiss as the bottle, full of water, popped its cork and sent a gout of water inside the little stone structure. Steam rolled up and then disappeared, and she took a pace back from the sudden wave of heat. Terrified, she began to think of hose, of extinguisher . . . the garage, all these trees, the house . . . and then she saw that the side of the brownie's house which adjoined the wooden garage was fieldstone too. The heat,

whatever it was, was contained.

It seemed to diminish a little. Then the glass bottle wavered, softened, slumped and fell inside. Heat blasted out again, and again diminished.

She stepped closer and peered down through the hole left by the bottle. She could clearly see, lying on the floor of the stone chamber, the clay slab Tandy had made, with its odd, geometrical system of ditches and scorings. But they seemed filled with some quivering liquid, which even as she watched turned from yellow to silver and then dulled to what could only be called a chalky pewter. The lines and ditches, filled with this almost-metal, made a sort of screen, but not exactly. It was too tangled for that. Say an irregular frame about an irregular opening in the center of the slab. And this center area began to turn blue and then purple, and then throb in some way she would never be able to describe. She had to turn her eyes away.

Looking away seemed to snap the thread of fascination with which she had leashed fear. She fled to the house, dialed the telephone, got her husband. "Quick," she said, and stopped to pant, alarming him mightily. "Come home."

It was all she could manage. She hung up and sank into a

couch. She was therefore unaware of Noël, who came trotting across the back of the house and straight and fearlessly behind the garage. She stood for a while with a red lollipop in her mouth and pink hands behind her, watching the heat-flickers over the stones, then circled them carefully to windward and squatted down where she could peer inside. Carefully then, and much more steadily than even a deft three-year-old might be expected to move, she reached down with her delicate lollipop and probed the molten slag.

"OH, don't, don't!" the mother said later back of the garage, as the father stabbed angrily at the hot stones with a crowbar. "Tandy might . . . she might . . . oh, it's meant so much to her . . ."

"I don't care, I don't care," he growled, stabbing and slashing and ruining. "I don't like it. Just say it's about fire, like playing with matches. We won't punish her or anything."

"No?" she said woefully, looking at the ruins.

"And this," he said, "damn devilish thing." He scooped up the brownie and thrust it among the scorching rocks. It flamed up easily. The last thing to go was the pair of dull eyes. The mother was at last sure they had been open the whole time. "Just tell

her we almost had a fire," growled the father.

. . . which was the selfsame day Tandy brought back her report card, the absolutely perfect report card, and the note:

...truly the first absolutely perfect report card I have ever made out in my twenty-eight years of teaching school. The change in Tandy is quite beyond anything I have ever seen. She is an absolute delight, and I think it safe to say that probably she always was; her previous behavior was, perhaps, a protest against something which she has now accepted. I shall never be able to express my gratitude to you for coming in for that talk, nor my admiration of you for your handling of the child (whatever that was!) It might be gracious of you to say that perhaps I had something to do with this; I would like to forestall that compliment. I did nothing special, nothing extra. It is you who have wrought the most pleasant kind of miracle.

It was signed by her teacher, and it left them numb. Then the mother kissed Tandy and exclaimed, "Oh darling, whoever in the world magicked you?"

Exclamation or no, Tandy took it as a question and answered it directly: "The brownie."

There was a heavy silence, and then the mother took Tandy's hand. "You have to know about something," she said, and ungently to the father, "You come too."

They went out behind the garage, the woman touching Tandy's shoulders with ready mother hands. "There was a fire, honey. It all burned up. The brownie burned too."

The father, watching Tandy's face, which had not changed at the sight of the ruin (was this that un-seeing you read about, when people in shock deny to themselves what they see?) said suddenly and hoarsely, "It was an accident."

"No, it wasn't," Tandy said. She looked at her father and her mother but they were both looking at their feet. "And anyway, he isn't burned up, he wasn't in that fire."

"He was," said the father, but she ignored him. "Anyway," the mother said, "I'm terribly sorry about your pretty little house, Tandy."

Tandy poked out her lips briefly. "It wasn't a house, it was a factory, I told you," she said. "And anyway it's all finished with anyway."

"You better understand," said

the father doggedly, "that brownie did burn."

"You remember. You left him sitting right there," said the mother.

"Oh," said Tandy, "*that* wasn't a brownie! You can't see a brownie, silly. I've got the brownie. Don't you know that? Didn't you see the 'port card?"

"How did the . . ." She couldn't say it.

"It was easy. Any time I got to do something, I think about should I or not, and if I should, how I should do it; when I think of the right way, something inside here goes *bwoop-eee!*" (she made a startlingly electronic sound, the first syllable glissading upward and the second flat and unmusical, like a "pure" tone) "and I know that's what I should do. It's easy. And that's the brownie."

"Inside you."

"Mm-hm. That dirty old doll, that was just a way to get some fun out of all that hard work. I couldn't've done it without having some sort of fun. So I made it easy for brownies to live in this whole world and they make it easy for me."

The mother thought about a metallic twisted thing with a purple mystery atremble in it. It was like looking through a window into a—another place. Or a door.

"Tandy," she said, moved as

she sometimes was by sheer impulse, "how many brownies came through the door?"

"Four," said Tandy blithely, and began to skip. "One for me, one for Robin, one for Noël and one for the baby. Could I have some juice?"

They walked back to the house. Robin was home. He was giving Noël back her lollipop and saying "Thank you" the way they always wished he would. Noël always was a generous child. She had already given the baby a lick.

THE analogy of the profit-sharing plan appears as we imagine a self-satisfied tycoon at his desk and a bright-eyed junior exec sprinting in bearing mimeographed sheets. "Gosh, J. G., this is the first look I had at the new plan. You're doing a lot for your people here, J. G., a whole lot." And homiletically the great man inclines his head, accepting the tribute, and says "A happy worker is a loyal worker, my boy." And while bobbing his head, the junior executive is thinking, "Yeah, and what's good for the happy workers is good for management, how about that?"

Yet enlightened and cooperative self-interest is not always to be sneered at. Ask any symbiote. Whatever it was that bubbled up into of that blue orifice had been designed simply and solely to

adapt a host fully to its environment, in order to induce that cardinal harmony called — joy.

Not satisfaction, not contentment, not pleasure. These can be had in other ways, and by using less than all of the environment. A surge of joy within the host created that special substance on which the symbiote fed, and it was as simple as that. Oh happy worker. Oh happy management...

"Well, thank God anyway she's back to normal," said the father. He came in from the porch where he and the mother had stood watching the neighborhood kids and Robin and Tandy playing on the lawn. The mother did not point out to him that Tandy, in and of the whole group now, may have been playing normally, but she wasn't back to it; she'd come to it. The mother stood watching, silent, happy, and frightened.

Inside, the father picked up his newspaper and threw it down again when he heard one of those special in-group code sounds which come to families like secret cyphers. This one was the click of heavy glass against hardwood, and meant that the baby, who had been put down in the crib in the master bedroom, had lashed out with a strong left hook in his random way and belted his bottle out of his mouth and up against the crib bars.

The father stopped just inside the bedroom. His jaw dropped, and all he could do was slowly to raise a hand to his chin and close it and hold it closed. For the baby, the six-months-old Timothy, who only yesterday could hopelessly lose a bottle five-eighths of an inch away from his hungry face, pulled himself to a sitting position by the bars, half-turned to the left and pulled the pillow on which the bottle had been perched away from the side of the crib and up to a formal position across the end of the mattress; half-turned to the right to grasp the bottle, then lay back.

He not only took the bottle firmly in his two hands; he not only got his mouth on it; he also elevated it so it would flow freely.

And for a long moment there was no sound but his suckings, his rhythmic murmurs of sheer joy, and the faint susurrus of tiny bubbles valving back into the bottle; for the father was holding his breath. At last the father inhaled and opened his mouth to call his wife witness to this miracle. He then thought better of it, closed his mouth, wagged his head and quietly left the room.

As he entered by one door, Robin, the firstborn, bounded in at the front. The screen door went to the stretch, and uncorked a curve that promised to tear out

the moldings when it hit. The father squinched up his face and eyes in preparation for the crash, but Robin, for the first time in his life—a boy has to be at least eleven before he stops slamming screen-doors, and Robin was only eight—Robin reached behind him without looking and buffered the door with his fingertips, so it closed with a whisper and a click. He galloped past the unthunder-struck father and went into the kitchen; a moment later he was seen, all unbidden, lugging the garbage out.

The father fell weakly back into the big wicker chair.

FORECAST

Cordwainer Smith is one science-fiction writer who made his mark strictly on quality, not quantity, because up to now the quantity has been, as any connoisseur knows, far too small. It's a pleasure to know that he has got down to work and the quantity is on the increase — and quality, if anything, better than ever! We've got him firmly pinned down for the June *Galaxy* with a story which elucidates a simple three-part law: Poor communications deter theft; good communications promote theft; perfect communications stop theft.

That's the idea behind the story. The way Cordwainer Smith fleshes it out is what

"Daddy . . ."

He put down his paper. Noël came to him with a long cardboard box stretching her three-year-old arms out almost straight. She plead, "You wanna play chest with me?"

He looked at her for a long moment. Many times they had sat on the carpet and made soldier-parades with the chessmen. But now he—he . . .

He shuddered. He tried to control it but he couldn't. "No, Noël," he said. "I don't want to play chest with you . . ." But oh, that's Noël's story, not Tandy's.

— THEODORE STURGEON

makes a first-rate novelette out of our forthcoming *Mother Hitton's Littul Kittons*. (Yes, that's the way it's spelled!)

What else? More than we have space to say! There's Mack Reynolds with a long novelette called *Farmer* — Frank Herbert with one called *A-W-F Unlimited* — maybe another novelette — and the usual lineup of features . . .

And among the shorts one at least that deserves a special word: *A Gentle Dying*, by Fredrik Pohl and C. M. Kornbluth. Kornbluth's death broke up one of the finest writing teams in science fiction. This may be the last time that familiar double by-line will appear in *Galaxy* . .

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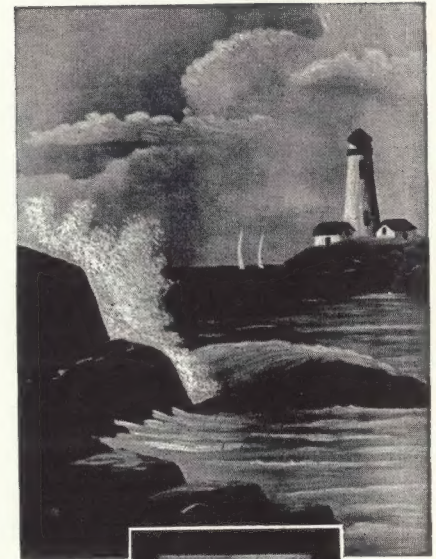
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